

| PHOTO TRANSISTOR                                                                                                                                                                                                                                                                                     |                                      |                                                |                             |                                     |                                    |                                    |                                      |                                               |               |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------|-----------------------------|-------------------------------------|------------------------------------|------------------------------------|--------------------------------------|-----------------------------------------------|---------------|-------------|
| General Purpose 4 and 6 Pin Packages; 6 Pin DIP - Safety Approvals: UL, CSA, VDE 0884, BSI, NEMKO, DEMKO, SEMKO, and FIMKO *Note 1                                                                                                                                                                   |                                      |                                                |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| Part Number                                                                                                                                                                                                                                                                                          | Features                             | Current Transfer Ratio<br>IF = 10mA<br>Min (%) | Isolation Test Voltage (KV) | Continuous Forward Current Max (mA) | VBR<br>IR = 10µA<br>Min (V)        | BVCEO<br>IC = 1mA<br>Min (V)       | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>IF = 16mA<br>IC = 2mA<br>Max (V) | Schematic No. | Package No. |
| H24A1                                                                                                                                                                                                                                                                                                | 4 Pin Package                        | 100                                            |                             | 50                                  | 3.0                                | 30                                 | 100                                  |                                               | 3             | 4           |
| H24A2                                                                                                                                                                                                                                                                                                |                                      | 20                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| H24A3                                                                                                                                                                                                                                                                                                |                                      | 75                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| H24A4                                                                                                                                                                                                                                                                                                |                                      | 50                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| H11A1                                                                                                                                                                                                                                                                                                | 6 Pin DIP<br><br>Base Lead Connected | 50                                             | 7.5 (pk)<br><br>5.3 (rms)   | 60                                  | 3.0                                | 30<br>(IC = 10mA)                  | 50                                   | 0.4<br>(IF = 10mA)<br>(IC = 0.5mA)            | 5             | 1           |
| H11A2                                                                                                                                                                                                                                                                                                |                                      | 20                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| H11A3                                                                                                                                                                                                                                                                                                |                                      | 20                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| H11A4                                                                                                                                                                                                                                                                                                |                                      | 10                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| H11A5                                                                                                                                                                                                                                                                                                |                                      | 30                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| IL1                                                                                                                                                                                                                                                                                                  |                                      | 20-300                                         |                             |                                     |                                    | 50                                 | 0.4                                  |                                               |               |             |
| IL2                                                                                                                                                                                                                                                                                                  |                                      | 100 - 500                                      |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| IL5                                                                                                                                                                                                                                                                                                  |                                      | 50-400                                         |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| IS1                                                                                                                                                                                                                                                                                                  |                                      | 20                                             |                             |                                     |                                    |                                    |                                      | 0.5<br>(IC = 1.5mA)                           |               |             |
| IS5                                                                                                                                                                                                                                                                                                  |                                      | 50                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| IS74                                                                                                                                                                                                                                                                                                 |                                      | 12.5<br>(IF = 16mA)                            |                             |                                     | 0.5<br>(IC = 0.5mA)                |                                    |                                      |                                               |               |             |
| MCT2                                                                                                                                                                                                                                                                                                 |                                      | 20                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT2E                                                                                                                                                                                                                                                                                                |                                      | 50                                             |                             |                                     | 100                                | 0.4                                |                                      |                                               |               |             |
| MCT210                                                                                                                                                                                                                                                                                               |                                      | 50<br>(IF = 3.2 - 32mA)<br>(VCE = 0.4V)        |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT270                                                                                                                                                                                                                                                                                               |                                      | 50                                             |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT271                                                                                                                                                                                                                                                                                               |                                      | 45-90                                          |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT272                                                                                                                                                                                                                                                                                               |                                      | 75-150                                         |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT273                                                                                                                                                                                                                                                                                               |                                      | 125-250                                        |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT274                                                                                                                                                                                                                                                                                               |                                      | 225-400                                        |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT275                                                                                                                                                                                                                                                                                               |                                      | 70-210                                         |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT276                                                                                                                                                                                                                                                                                               |                                      | 15-60                                          |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT277                                                                                                                                                                                                                                                                                               |                                      | 100                                            |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT2200                                                                                                                                                                                                                                                                                              |                                      | 20                                             |                             |                                     | 50                                 | 0.4<br>(IF = 10mA)<br>(IC = 2.5mA) |                                      |                                               |               |             |
| MCT2201                                                                                                                                                                                                                                                                                              |                                      | 100                                            |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| MCT2202                                                                                                                                                                                                                                                                                              |                                      | 63-125                                         |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| TIL111                                                                                                                                                                                                                                                                                               |                                      | 12.5<br>(IF = 16mA)<br>(VCE = 0.4V)            |                             |                                     |                                    |                                    | 0.4                                  |                                               |               |             |
| TIL114                                                                                                                                                                                                                                                                                               |                                      |                                                |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| TIL116                                                                                                                                                                                                                                                                                               |                                      | 20                                             |                             |                                     | 0.4<br>(IF = 15mA)<br>(IC = 2.2mA) |                                    |                                      |                                               |               |             |
| TIL117                                                                                                                                                                                                                                                                                               |                                      | 50                                             |                             |                                     | 0.4<br>(IF = 10mA)<br>(IC = 0.5mA) |                                    |                                      |                                               |               |             |
| SFH609-1                                                                                                                                                                                                                                                                                             |                                      | 40 - 80                                        |                             |                                     | 6.0                                | 90                                 | 50                                   | 0.4<br>(IF = 10mA)<br>(IC = 2.5mA)            |               |             |
| SFH609-2                                                                                                                                                                                                                                                                                             |                                      | 63 - 125                                       |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| SFH609-3                                                                                                                                                                                                                                                                                             |                                      | 100 - 200                                      |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. H11A1X                                                                                                                                                                                    |                                      |                                                |                             |                                     |                                    |                                    |                                      |                                               |               |             |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. H11A1XG<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. H11A1XSM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. H11A1XSM T&R |                                      |                                                |                             |                                     |                                    |                                    |                                      |                                               |               |             |

| PHOTO TRANSISTOR                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
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| 6 Pin DIP - Safety Approvals: UL, CSA, VDE 0884, BSI, NEMKO, DEMKO, SEMKO, and FIMKO *Note 1                                                                                                                                                                                                                                                                                                                                                             |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| Part Number                                                                                                                                                                                                                                                                                                                                                                                                                                              | Features            | Current Transfer Ratio Min (%) | CTR Test Conditions                            | Isolation Test Voltage (KV) | Continuous Forward Current Max (mA) | BVCEO IC = 1mA Min (V) | ICEO (Dark) VCE = 10V Max (nA)    | VCE (Sat) Max (V)                  | Schematic No. | Package No. |                                  |                    |                                    |
| 4N25                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Base Lead Connected | 20                             | IF = 10mA<br>VCE = 10V                         | 7.5 (pk)<br><br>5.3 (rms)   | 60                                  | 30                     | 50                                | 0.5<br>(IF = 50mA)<br>(IC = 2mA)   | 5             | 1           |                                  |                    |                                    |
| 4N26                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     | 10                             |                                                |                             |                                     |                        | 100                               | 0.3<br>(IF = 10mA)<br>(IC = 0.5mA) |               |             |                                  |                    |                                    |
| 4N27                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| 4N28                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     | 100                            |                                                |                             |                                     |                        | 50                                |                                    |               |             | 1.0<br>(IF = 20mA)<br>(IC = 4mA) |                    |                                    |
| 4N35                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| 4N36                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| 4N37                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     | 20                             | IF = 20mA<br>VCE = 1V                          |                             |                                     | 80                     | 0.4<br>(IF = 10mA)<br>(IC = 4mA)  |                                    |               |             |                                  |                    |                                    |
| 4N38                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| 4N38A                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 40                             | IF = 10mA<br>VCE = 0.4V                        |                             |                                     | 30                     | 0.4<br>(IF = 10mA)<br>(IC = 4mA)  |                                    |               |             |                                  |                    |                                    |
| CNX72A                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| CNY17-1                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                                |                                                |                             |                                     |                        |                                   | 40 - 80                            |               |             | IF = 10mA<br>VCE = 5V            | 70                 | 0.4<br>(IF = 10mA)<br>(IC = 2.5mA) |
| CNY17-2                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                                |                                                |                             |                                     |                        |                                   | 63 - 125                           |               |             |                                  |                    |                                    |
| CNY17-3                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     | 100 - 200                      |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| CNY17-4                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     | 160 - 320                      |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| CNY17-5                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     | 200 - 400                      |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| CNY75A                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     | 63 - 125<br>15                 | Higher CTR figures @<br>IF = 10mA<br>VCE = 5V  |                             |                                     | 90                     | 150<br>(VCE = 30V)                | 0.3<br>(IF = 10mA)<br>(IC = 1mA)   |               |             |                                  |                    |                                    |
| CNY75B                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     | 100 - 200<br>30                | Lower CTR figures @<br>IF = 1mA<br>VCE = 5V    |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| CNY75C                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     | 160 - 320<br>60                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| CQY80                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 50                             | IF = 10mA<br>VCE = 5V                          |                             |                                     |                        |                                   |                                    |               |             | 32                               | 200<br>(VCE = 20V) |                                    |
| H11AV1                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     | 100 - 300                      | IF = 10mA<br>VCE = 10V                         |                             |                                     | 70                     | 50                                | 0.4<br>(IF = 20mA)<br>(IC = 2mA)   |               |             |                                  |                    |                                    |
| H11AV2                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     | 50                             |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| H11AV3                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     | 20                             |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| IS201                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 75<br>10                       | Higher CTR figures @<br>IC = 10mA<br>VCE = 10V |                             |                                     |                        |                                   |                                    |               |             | 0.4<br>(IF = 10mA)<br>(IC = 2mA) |                    |                                    |
| IS202                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 125 - 250<br>30                | Lower CTR figures @<br>IF = 1mA<br>VCE = 10V   |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| IS203                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 225 - 450<br>50                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| IS204                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     | 200 - 400<br>100               |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |
| MOC8100                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     | 50<br>30 (0 - 70°C)            | IF = 1mA<br>VCE = 5V                           |                             |                                     | 30                     | 0.5<br>(IF = 1mA)<br>(IC = 0.1mA) |                                    |               |             |                                  |                    |                                    |
| <div>* Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. 4N25X</div> <div>* Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. 4N25XG<br/>For product with Gull Wing lead form, add "SM" after the basic part number e.g. 4N25XSM<br/>Tape &amp; Reel is available on all SMT product by adding T&amp;R after the basic part number e.g. 4N25XSM T&amp;R</div> |                     |                                |                                                |                             |                                     |                        |                                   |                                    |               |             |                                  |                    |                                    |

\* Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. 4N25X

Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. 4N25XG  
For product with Gull Wing lead form, add "SM" after the basic part number e.g. 4N25XSM  
Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. 4N25XSM T&R

| PHOTO TRANSISTOR                                                                                                                                                                                                                                                                                              |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------|------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------|---------------|-------------|----|----|----|--|--|--|--|--|
| 6 Pin DIP - Safety Approvals: UL, CSA, VDE 0884, BSI, NEMKO, DEMKO, SEMKO, and FIMKO *Note 1                                                                                                                                                                                                                  |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| Part Number                                                                                                                                                                                                                                                                                                   | Features                                                                   | Current Transfer Ratio Min (%)   | CTR Test Conditions                                                        | Isolation Test Voltage (KV)                              | Continuous Forward Current Max (mA) | BV <sub>CEO</sub> I <sub>C</sub> = 1mA Min (V)             | ICEO (Dark) V <sub>CE</sub> = 10V Max (nA) | V <sub>CE</sub> (Sat) Max (V)                              | Schematic No. | Package No. |    |    |    |  |  |  |  |  |
| SFH600-0                                                                                                                                                                                                                                                                                                      | Base Lead Connected                                                        | 40 - 80                          | I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 5V                              | 7.5 (pk)<br>5.3 (rms)                                    | 60                                  | 70                                                         | 35                                         | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>C</sub> = 2.5mA) | 5             | 1           |    |    |    |  |  |  |  |  |
| SFH600-1                                                                                                                                                                                                                                                                                                      |                                                                            | 63 - 125                         |                                                                            |                                                          |                                     |                                                            | 70                                         |                                                            |               |             |    |    |    |  |  |  |  |  |
| SFH600-2                                                                                                                                                                                                                                                                                                      |                                                                            | 100 - 200                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             | 70 |    |    |  |  |  |  |  |
| SFH600-3                                                                                                                                                                                                                                                                                                      |                                                                            | 160 - 320                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    | 70 |    |  |  |  |  |  |
| SFH600-4                                                                                                                                                                                                                                                                                                      |                                                                            | 200 - 400                        |                                                                            |                                                          |                                     | 100                                                        |                                            |                                                            |               |             |    |    | 50 |  |  |  |  |  |
| SFH601-1                                                                                                                                                                                                                                                                                                      |                                                                            | 40 - 80                          |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| SFH601-2                                                                                                                                                                                                                                                                                                      |                                                                            | 63 - 125                         |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| SFH601-3                                                                                                                                                                                                                                                                                                      |                                                                            | 100 - 200                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| SFH601-4                                                                                                                                                                                                                                                                                                      |                                                                            | 160 - 320                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| SFH601-5                                                                                                                                                                                                                                                                                                      |                                                                            | 200 - 400                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                               |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                               |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| 6 Pin DIP - Safety Approvals: UL, CSA, VDE 0884, BSI, NEMKO, DEMKO, SEMKO, and FIMKO *Note 1                                                                                                                                                                                                                  |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| Part Number                                                                                                                                                                                                                                                                                                   | Features                                                                   | Current Transfer Ratio Min (%)   | CTR Test Conditions                                                        | Isolation Test Voltage (KV)                              | Continuous Forward Current Max (mA) | BV <sub>CEO</sub> I <sub>C</sub> = 1mA Min (V)             | ICEO (Dark) V <sub>CE</sub> = 10V Max (nA) | V <sub>CE</sub> (Sat) Max (V)                              | Schematic No. | Package No. |    |    |    |  |  |  |  |  |
| CNX82A                                                                                                                                                                                                                                                                                                        | Base Lead Not Connected                                                    | 40                               | I <sub>F</sub> = 10mA<br>V <sub>CE</sub> = 0.4V                            | 7.5 (pk)<br>5.3 (rms)                                    | 60                                  | 50                                                         | 50                                         | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>C</sub> = 4mA)   | 8             | 1           |    |    |    |  |  |  |  |  |
| CNY17F-1                                                                                                                                                                                                                                                                                                      |                                                                            | 40 - 80                          | 70                                                                         |                                                          |                                     | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>C</sub> = 2.5mA) |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| CNY17F-2                                                                                                                                                                                                                                                                                                      |                                                                            | 63 - 125                         |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| CNY17F-3                                                                                                                                                                                                                                                                                                      |                                                                            | 100 - 200                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| CNY17F-4                                                                                                                                                                                                                                                                                                      |                                                                            | 160 - 320                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| MOC8101                                                                                                                                                                                                                                                                                                       |                                                                            | 50 - 80                          | 30                                                                         |                                                          |                                     | 0.4<br>(I <sub>F</sub> = 5mA)<br>(I <sub>C</sub> = 0.5mA)  |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| MOC8102                                                                                                                                                                                                                                                                                                       |                                                                            | 73 - 117                         |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| MOC8103                                                                                                                                                                                                                                                                                                       |                                                                            | 108 - 173                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| MOC8104                                                                                                                                                                                                                                                                                                       |                                                                            | 160 - 256                        |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| MOC8111                                                                                                                                                                                                                                                                                                       |                                                                            | 20                               |                                                                            |                                                          |                                     |                                                            |                                            | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>C</sub> = 0.5mA) |               |             |    |    |    |  |  |  |  |  |
| MOC8112                                                                                                                                                                                                                                                                                                       |                                                                            | 50                               |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| MOC8113                                                                                                                                                                                                                                                                                                       |                                                                            | 100                              |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| IS205                                                                                                                                                                                                                                                                                                         |                                                                            | 100                              |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| IS206                                                                                                                                                                                                                                                                                                         |                                                                            | 50                               |                                                                            |                                                          |                                     |                                                            |                                            | 0.4<br>(I <sub>F</sub> = 10mA)<br>(I <sub>C</sub> = 0.5mA) |               |             |    |    |    |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                               |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                               |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| FET COUPLERS                                                                                                                                                                                                                                                                                                  |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| 6 Pin DIP, Single Channel - Safety Approvals: UL, VDE 0884 *Note 1                                                                                                                                                                                                                                            |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| Part Number                                                                                                                                                                                                                                                                                                   | Features                                                                   | Isolation Breakdown Voltage (KV) | On State Resistance I <sub>F</sub> = 16mA I <sub>46</sub> = ±100μA Max (Ω) | Output Breakdown Voltage I <sub>46</sub> = ±10μA Max (V) | Continuous Forward Current Max (mA) | Off State Current V <sub>46</sub> = ±15V Max (nA)          | Schematic No.                              | Package No.                                                |               |             |    |    |    |  |  |  |  |  |
| H11F1                                                                                                                                                                                                                                                                                                         | Infrared LED Emitter Input & a Symmetrical Bilateral Photo Detector Output | 7.5 (pk)<br>5.3 (rms)            | 200                                                                        | 30                                                       | 60                                  | 50                                                         | 10                                         |                                                            |               |             |    |    |    |  |  |  |  |  |
| H11F2                                                                                                                                                                                                                                                                                                         |                                                                            |                                  | 330                                                                        |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| H11F3                                                                                                                                                                                                                                                                                                         |                                                                            |                                  | 470                                                                        |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| IS610                                                                                                                                                                                                                                                                                                         |                                                                            |                                  | 200                                                                        |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| IS611                                                                                                                                                                                                                                                                                                         |                                                                            |                                  | 170                                                                        |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                               |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. SFH600-0X                                                                                                                                                                                          |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. SFH600-0XG<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. SFH600-0XSM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. SFH600-0XSM T&R |                                                                            |                                  |                                                                            |                                                          |                                     |                                                            |                                            |                                                            |               |             |    |    |    |  |  |  |  |  |

| PHOTO TRANSISTOR                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                                                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------|------------------------------------------|----------------------------------------------|--------------------------------------------|-------------------------------------------|--------------------------------------|-------------------------------------------------|------------------|----------------|--|--|
| High Collector-Emitter Voltage - Safety Approvals: UL, VDE 0884 *Note 1                                                                                                                                                                                                                                                                                                                                                                                    |                        |                                                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| Part Number                                                                                                                                                                                                                                                                                                                                                                                                                                                | Features               | Current<br>Transfer Ratio<br>IF = 10mA<br>RBE = 1MΩ<br>Min (%) | Isolation<br>Test<br>Voltage<br>(KV)     | Continuous<br>Forward<br>Current<br>Max (mA) | Forward<br>Voltage<br>IF = 10mA<br>Max (V) | BVCER<br>IC = 1mA<br>RBE = 1MΩ<br>Min (V) | ICER (Dark)<br>RBE = 1MΩ<br>Max (nA) | VCE (Sat)<br>IF = 10mA<br>IC = 0.5mA<br>Max (V) | Schematic<br>No. | Package<br>No. |  |  |
| H11D1                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6 Pin DIP              | 20                                                             | 7.5 (pk)                                 | 60                                           | 1.5                                        | 300                                       | 100<br>(VCE = 200V)                  | 0.4                                             | 5                | 3              |  |  |
| H11D2                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                                                | 5.3 (rms)                                |                                              |                                            | 200                                       | 100<br>(VCE = 100V)                  |                                                 |                  | 2              |  |  |
| H11D3                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        | 10                                                             |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| H11D4                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| <div>* Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. H11D1X</div> <div>Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. H11D1XG<br/>For product with Gull Wing lead form, add "SM" after the basic part number e.g. H11D1XSM<br/>Tape &amp; Reel is available on all SMT product by adding T&amp;R after the basic part number e.g. H11D1XSM T&amp;R</div> |                        |                                                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |                                                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| General Purpose 8 Pin SOIC Package                                                                                                                                                                                                                                                                                                                                                                                                                         |                        |                                                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| Part Number                                                                                                                                                                                                                                                                                                                                                                                                                                                | Features               | Current<br>Transfer<br>Ratio<br>IF = 10 / 1mA<br>Min (%)       | Isolation<br>Test<br>Voltage<br>(KV) rms | Continuous<br>Forward<br>Current<br>Max (mA) | Forward<br>Voltage<br>IF = 10mA<br>Max (V) | BVCER<br>IC = 100μA<br>Min (V)            | ICER (Dark)<br>Max (nA)<br>VCE = 10V | VCE (Sat)<br>IF = 10mA<br>IC = 2mA<br>Max (V)   | Schematic<br>No. | Package<br>No. |  |  |
| IL205A                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Base Lead<br>Connected | 40-80 / 13                                                     | 2.5                                      | 60                                           | 1.5                                        | 70                                        |                                      | 0.4                                             | 40               | 10             |  |  |
| IL206A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 63-125 / 22                                                    |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| IL207A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 100-200 / 34                                                   |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| IL208A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 160-320 / 56                                                   |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| IL211A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 20 /                                                           |                                          |                                              | 1.5<br>(IF = 1.0mA)                        | 30<br>(IC = 10μA)                         | 50                                   | 0.4<br>(IF = 1mA)<br>(IC = 100μA)               |                  |                |  |  |
| IL212A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 50 /                                                           |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| IL213A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 100 /                                                          |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| IL215A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 20<br>(IF = 1mA)<br>(VCE = 5V)                                 |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| IL216A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 50<br>(IF = 1mA)<br>(VCE = 5V)                                 |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| IL217A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 100<br>(IF = 1mA)<br>(VCE = 5V)                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC205                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 40-80 / 13                                                     |                                          |                                              | 1.5                                        | 70                                        |                                      | 0.4                                             |                  |                |  |  |
| MOC206                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 63-125 / 22                                                    |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC207                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 100-200 / 34                                                   |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC208                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 160-320 / 56                                                   |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC211                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 20 /                                                           |                                          |                                              | 1.3<br>(IF = 1.0mA)                        | 30                                        | 50<br>(VCE = 5V)                     | 0.4<br>(IF = 1mA)<br>(IC = 100μA)               |                  |                |  |  |
| MOC212                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 50 /                                                           |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC213                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 100 /                                                          |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC215                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 20<br>(IF = 1mA)<br>(VCE = 5V)                                 |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC216                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 50<br>(IF = 1mA)<br>(VCE = 5V)                                 |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |
| MOC217                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        | 100<br>(IF = 1mA)<br>(VCE = 5V)                                |                                          |                                              |                                            |                                           |                                      |                                                 |                  |                |  |  |

| IN-LINE PACKAGES                                                                                                                                                                                                                                                                                              |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------|-----------------------------|-------------------------------------|--------------------------------|--------------------------|---------------------------------|---------------------------------------|--------------------------------|-------------------------------|-------------------------------|----|-------------------------------|
| 4 Pins per Channel - Safety Approvals: UL, CSA, VDE 0884, NEMKO, DEMKO, SEMKO, and FIMKO *Note 1                                                                                                                                                                                                              |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| Part Number                                                                                                                                                                                                                                                                                                   | Features                                 | Current Transfer Ratio<br>If = 5mA (%)                             | Isolation Test Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED Ir = 10µA Min (V)      | BVCEO Ic = 0.5mA Min (V) | ICEO (Dark) VCE = 24V Max (nA)  | VCE (Sat) If = 8mA Ic = 2.4mA Max (V) | Schematic No.                  | Package No.                   |                               |    |                               |
| ISP321-1                                                                                                                                                                                                                                                                                                      | In Line LED's and Transistors            | 50 - 600 CTR Selection Available<br>"GB" 100% Min<br>"BL" 200% Min | 7.5 (pk)<br>5.3 (rms)       | 50                                  | 5                              | 80                       | 100                             | 0.4                                   | 29                             | 12                            |                               |    |                               |
| ISP621-1                                                                                                                                                                                                                                                                                                      |                                          |                                                                    |                             |                                     |                                | 55                       |                                 |                                       |                                |                               | 0.2 (If = 20mA)<br>(Ic = 1mA) |    |                               |
| ISP521-1                                                                                                                                                                                                                                                                                                      |                                          |                                                                    |                             |                                     |                                | 35                       |                                 |                                       |                                |                               |                               |    |                               |
| ISP817                                                                                                                                                                                                                                                                                                        |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| ISP624-1                                                                                                                                                                                                                                                                                                      |                                          | 55                                                                 |                             |                                     |                                | 100                      | 0.4 (If = 1mA)<br>(Ic = 0.5mA)  |                                       |                                |                               |                               |    |                               |
| PS2501-1                                                                                                                                                                                                                                                                                                      |                                          | 80                                                                 |                             |                                     |                                | 100 (Ic = 1mA)           | 100 (VCE = 40V)                 | 0.3 (If = 10mA)<br>(Ic = 2mA)         |                                |                               |                               |    |                               |
| SFH615A-1                                                                                                                                                                                                                                                                                                     |                                          | 40-80 / 13<br>(If = 10 / 1mA)                                      |                             |                                     | 70                             | 50<br>(VCE = 10V)        | 0.4 (If = 10mA)<br>(Ic = 2.5mA) |                                       |                                |                               |                               |    |                               |
| SFH615A-2                                                                                                                                                                                                                                                                                                     |                                          | 63-125 / 22<br>(If = 10 / 1mA)                                     |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| SFH615A-3                                                                                                                                                                                                                                                                                                     |                                          | 100-200 / 34<br>(If = 10 / 1mA)                                    |                             |                                     |                                | 100<br>(VCE = 10V)       |                                 |                                       |                                |                               |                               |    |                               |
| SFH615A-4                                                                                                                                                                                                                                                                                                     |                                          | 160-320 / 56<br>(If = 10 / 1mA)                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| SFH617A-1                                                                                                                                                                                                                                                                                                     |                                          | 40-80 / 13<br>(If = 10 / 1mA)                                      |                             |                                     | 6                              | 50<br>(VCE = 10V)        | 0.4 (If = 10mA)<br>(Ic = 2.5mA) |                                       |                                |                               |                               |    |                               |
| SFH617A-2                                                                                                                                                                                                                                                                                                     |                                          | 63-125 / 22<br>(If = 10 / 1mA)                                     |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| SFH617A-3                                                                                                                                                                                                                                                                                                     |                                          | 100-200 / 34<br>(If = 10 / 1mA)                                    |                             |                                     |                                | 100<br>(VCE = 10V)       |                                 |                                       |                                |                               |                               |    |                               |
| SFH617A-4                                                                                                                                                                                                                                                                                                     |                                          | 160-320 / 56<br>(If = 10 / 1mA)                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| SFH618A-2                                                                                                                                                                                                                                                                                                     |                                          | 63-125<br>(If = 1mA)                                               |                             |                                     | 55                             | 200<br>(VCE = 10V)       | 0.4 (If = 1mA)<br>(Ic = 0.32mA) |                                       |                                |                               |                               |    |                               |
| SFH618A-3                                                                                                                                                                                                                                                                                                     |                                          | 100-200<br>(If = 1mA)                                              |                             |                                     |                                |                          | 0.4 (If = 1mA)<br>(Ic = 0.5mA)  |                                       |                                |                               |                               |    |                               |
| SFH618A-4                                                                                                                                                                                                                                                                                                     |                                          | 160-320<br>(If = 1mA)                                              |                             |                                     |                                |                          | 0.4 (If = 1mA)<br>(Ic = 0.8mA)  |                                       |                                |                               |                               |    |                               |
|                                                                                                                                                                                                                                                                                                               |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| TLP321                                                                                                                                                                                                                                                                                                        |                                          | 50-600                                                             |                             |                                     | 80                             | 100<br>(VCE = 48V)       | 0.4                             |                                       |                                |                               |                               |    |                               |
| TLP521                                                                                                                                                                                                                                                                                                        |                                          |                                                                    |                             |                                     | 55                             |                          |                                 |                                       |                                |                               |                               |    |                               |
| TLP621                                                                                                                                                                                                                                                                                                        |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| TLP624                                                                                                                                                                                                                                                                                                        | 55                                       |                                                                    |                             |                                     | 0.4 (If = 1mA)<br>(Ic = 0.5mA) |                          |                                 |                                       |                                |                               |                               |    |                               |
| ISP321-2                                                                                                                                                                                                                                                                                                      | Two Independent Isolators in one Package | 50 - 600 CTR Selection Available<br>"GB" 100% Min<br>"BL" 200% Min |                             |                                     |                                |                          | 5                               | 80                                    | 100                            | 0.4                           | 28                            | 13 |                               |
| ISP621-2                                                                                                                                                                                                                                                                                                      |                                          |                                                                    |                             |                                     |                                |                          |                                 | 55                                    |                                |                               |                               |    | 0.2 (If = 20mA)<br>(Ic = 1mA) |
| ISP521-2                                                                                                                                                                                                                                                                                                      |                                          |                                                                    |                             |                                     |                                |                          |                                 | 35                                    |                                |                               |                               |    |                               |
| ISP827                                                                                                                                                                                                                                                                                                        |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| ISP624-2                                                                                                                                                                                                                                                                                                      |                                          | 55                                                                 |                             |                                     |                                |                          |                                 | 0.4 (If = 1mA)<br>(Ic = 0.5mA)        |                                |                               |                               |    |                               |
| PS2501-2                                                                                                                                                                                                                                                                                                      |                                          | 80                                                                 |                             |                                     |                                |                          |                                 | 100 (Ic = 1mA)                        | 100 (VCE = 40V)                | 0.3 (If = 10mA)<br>(Ic = 2mA) |                               |    |                               |
| TLP321-2                                                                                                                                                                                                                                                                                                      |                                          | 50-600                                                             |                             |                                     |                                |                          | 80                              | 100<br>(VCE = 48V)                    | 0.4                            |                               |                               |    |                               |
| TLP521-2                                                                                                                                                                                                                                                                                                      |                                          |                                                                    |                             |                                     |                                |                          | 55                              |                                       |                                |                               |                               |    |                               |
| TLP621-2                                                                                                                                                                                                                                                                                                      |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| TLP624-2                                                                                                                                                                                                                                                                                                      |                                          |                                                                    |                             |                                     |                                |                          | 55                              | 100                                   | 0.4 (If = 1mA)<br>(Ic = 0.5mA) |                               |                               |    |                               |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. ISP321-1X                                                                                                                                                                                          |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. ISP321-1XG<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. ISP321-1XSM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. ISP321-1XSM T&R |                                          |                                                                    |                             |                                     |                                |                          |                                 |                                       |                                |                               |                               |    |                               |

| IN-LINE PACKAGES (continued)                                                                                                                                                                                                                                                                                  |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------|----------------------------------|-------------------------------------|------------------------------|-----------------------------------------------------------------|----------------------------------------------------|---------------------------------------------|---------------|-------------|
| 4 Pins per Channel - Safety Approvals: UL, CSA, VDE 0884, NEMKO, DEMKO, SEMKO, and FIMKO *Note 1                                                                                                                                                                                                              |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| Part Number                                                                                                                                                                                                                                                                                                   | Features                                  | Current Transfer Ratio<br>IF = 5mA (%)                             | Isolation Test Voltage (KV)      | Continuous Forward Current Max (mA) | VBR LED<br>IR = 10µA Min (V) | BVCEO<br>IC = 1mA Min (V)                                       | ICEO (Dark)<br>VCE = 24V Max (nA)                  | VCE (Sat)<br>IF = 8mA<br>IC = 2.4mA Max (V) | Schematic No. | Package No. |
| ISP321-4                                                                                                                                                                                                                                                                                                      | Four Independent Isolators in one Package | 50 - 600 CTR Selection Available<br>"GB" 100% Min<br>"BL" 200% Min | 7.5 (pk)<br><br>5.3 (rms)        | 50                                  | 5                            | 80                                                              | 100                                                | 0.4                                         | 27            | 14          |
| ISP621-4                                                                                                                                                                                                                                                                                                      |                                           |                                                                    |                                  |                                     |                              | 55                                                              |                                                    |                                             |               |             |
| ISP521-4                                                                                                                                                                                                                                                                                                      |                                           |                                                                    |                                  |                                     |                              | 35                                                              |                                                    | 0.2 (IF = 20mA)<br>(IC = 1mA)               |               |             |
| ISP847                                                                                                                                                                                                                                                                                                        |                                           |                                                                    |                                  |                                     |                              | 55                                                              |                                                    | 0.4 (IF = 1mA)<br>(IC = 0.5mA)              |               |             |
| ISP624-4                                                                                                                                                                                                                                                                                                      |                                           | 100 - 1200<br>(IF = ± 1mA)<br>(VCE = 0.5V)                         |                                  |                                     |                              | 80<br>(IC = 1mA)                                                | 100<br>(VCE = 40V)                                 | 0.2 (IF = 10mA)<br>(IC = 2mA)               |               |             |
| PS2501-4                                                                                                                                                                                                                                                                                                      |                                           | 80                                                                 |                                  |                                     |                              | 80                                                              | 100<br>(VCE = 48V)                                 | 0.4                                         |               |             |
| TLP321-4                                                                                                                                                                                                                                                                                                      |                                           | 50-600                                                             |                                  |                                     |                              | 55                                                              | 100                                                |                                             |               |             |
| TLP521-4                                                                                                                                                                                                                                                                                                      |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| TLP621-4                                                                                                                                                                                                                                                                                                      |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| TLP624-4                                                                                                                                                                                                                                                                                                      |                                           | 100 - 1200<br>(IF = ± 1mA)<br>(VCE = 0.5V)                         |                                  |                                     |                              |                                                                 |                                                    | 0.4 (IF = 1mA)<br>(IC = 0.5mA)              |               |             |
|                                                                                                                                                                                                                                                                                                               |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| SCHMITT TRIGGERS                                                                                                                                                                                                                                                                                              |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| Single Channel DIP - Safety Approvals: UL, VDE 0884 *Note 1                                                                                                                                                                                                                                                   |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| Part Number                                                                                                                                                                                                                                                                                                   | Features                                  | Turn-on Threshold Current<br>RL = 270Ω<br>VCC = 5V<br>Max (mA)     | Isolation Breakdown Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>IR = 10µA Min (V) | Turn-off Threshold Current<br>RL = 270Ω<br>VCC = 5V<br>Min (mA) | Output Voltage<br>RL = 270Ω<br>VCC = 5V<br>Max (V) | Schematic No.                               | Package No.   |             |
| H11L1                                                                                                                                                                                                                                                                                                         | Microprocessor Compatible                 | 1.6                                                                | 7.5 (pk)<br><br>5.3 (rms)        | 60                                  | 3                            | 0.3                                                             | 0.4                                                | 9                                           | 3             |             |
| H11L2                                                                                                                                                                                                                                                                                                         |                                           | 10.0                                                               |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| H11L3                                                                                                                                                                                                                                                                                                         |                                           | 5.0                                                                |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| H11L4                                                                                                                                                                                                                                                                                                         |                                           | 2.0                                                                |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| IS609                                                                                                                                                                                                                                                                                                         |                                           | 1.6                                                                |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| MOC5007                                                                                                                                                                                                                                                                                                       |                                           | 1.6                                                                |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| MOC5008                                                                                                                                                                                                                                                                                                       |                                           | 4.0                                                                |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| MOC5009                                                                                                                                                                                                                                                                                                       |                                           | 10.0                                                               |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. ISP321-4X                                                                                                                                                                                          |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. ISP321-4XG<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. ISP321-4XSM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. ISP321-4XSM T&R |                                           |                                                                    |                                  |                                     |                              |                                                                 |                                                    |                                             |               |             |

| DUAL CHANNEL                                                                                                                                                                                                                                                                                      |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------|-------------------------------------------------|----------------------------------|-------------------------------------|---------------------------------|------------------------------|--------------------------------------|-------------------------------------------------|---------------|-------------|
| General Purpose 8 Pin DIP - Safety Approvals: UL, CSA, VDE 0884 *Note 1                                                                                                                                                                                                                           |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                  | Current Transfer Ratio<br>If = 10mA<br>Min (%) |                                                 | Isolation Breakdown Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>Ir = 10µA<br>Min (V) | BVCEO<br>Ic = 1mA<br>Min (V) | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>If = 16mA<br>Ic = 0.5mA<br>Max (V) | Schematic No. | Package No. |
| ILD1                                                                                                                                                                                                                                                                                              | Two Independent Isolators in one Package  | 20-300                                         |                                                 | 7.5 (pk)                         | 60                                  | 6.0                             | 50                           | 50                                   | 0.4<br>(IC = 2mA)                               | 24            | 13          |
| ILD2                                                                                                                                                                                                                                                                                              |                                           | 100 - 500                                      |                                                 |                                  |                                     |                                 | 70                           |                                      |                                                 |               |             |
| ILD5                                                                                                                                                                                                                                                                                              |                                           | 50-400                                         |                                                 |                                  |                                     |                                 | 50                           |                                      |                                                 |               |             |
| ISD1                                                                                                                                                                                                                                                                                              |                                           | 20                                             |                                                 |                                  |                                     |                                 | 70                           |                                      |                                                 |               |             |
| ISD5                                                                                                                                                                                                                                                                                              |                                           | 50                                             |                                                 |                                  |                                     |                                 | 50                           |                                      |                                                 |               |             |
| ISD74                                                                                                                                                                                                                                                                                             |                                           | 12.5 (If = 16mA)                               |                                                 |                                  |                                     |                                 | 50                           |                                      |                                                 |               |             |
| MCT6                                                                                                                                                                                                                                                                                              |                                           | 20                                             |                                                 | 3.0                              | 30                                  | 100                             | 0.4<br>(IC = 2mA)            |                                      |                                                 |               |             |
| MCT61                                                                                                                                                                                                                                                                                             |                                           | 50 (If = 5mA)                                  |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| MCT62                                                                                                                                                                                                                                                                                             |                                           | 100 (If = 5mA)                                 |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| MCT66                                                                                                                                                                                                                                                                                             |                                           | 6                                              |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
|                                                                                                                                                                                                                                                                                                   |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
|                                                                                                                                                                                                                                                                                                   |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| High Isolation Voltage, High CTR, High Sensitivity - Safety Approvals: UL, CSA, VDE 0884 *Note 1                                                                                                                                                                                                  |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                  | Current Transfer Ratio<br>If = 10mA<br>Min (%) | Current Transfer Ratio<br>If = 1.0mA<br>Min (%) | Isolation Breakdown Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>Ir = 10µA<br>Min (V) | BVCEO<br>Ic = 1mA<br>Min (V) | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>If = 10mA<br>Ic = 2mA<br>Max (V)   | Schematic No. | Package No. |
| ISD201                                                                                                                                                                                                                                                                                            | Two Independent Isolators in one Package  | 75 Min                                         | 10                                              | 7.5 (pk)                         | 60                                  | 6.0                             | 70                           | 50                                   | 0.4                                             | 24            | 13          |
| ISD202                                                                                                                                                                                                                                                                                            |                                           | 125 - 250                                      | 30                                              | 5.3 (rms)                        |                                     |                                 |                              |                                      |                                                 |               |             |
| ISD203                                                                                                                                                                                                                                                                                            |                                           | 225 - 450                                      | 50                                              |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| ISD204                                                                                                                                                                                                                                                                                            |                                           | 200 - 400                                      | 100                                             |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
|                                                                                                                                                                                                                                                                                                   |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
|                                                                                                                                                                                                                                                                                                   |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| QUAD CHANNEL                                                                                                                                                                                                                                                                                      |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| General Purpose 8 Pin DIP - Safety Approvals: UL, CSA, VDE 0884 *Note 1                                                                                                                                                                                                                           |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                  | Current Transfer Ratio<br>If = 10mA<br>Min (%) |                                                 | Isolation Breakdown Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>Ir = 10µA<br>Min (V) | BVCEO<br>Ic = 1mA<br>Min (V) | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>If = 16mA<br>Ic = 2mA<br>Max (V)   | Schematic No. | Package No. |
| ILQ1                                                                                                                                                                                                                                                                                              | Four Independent Isolators in one Package | 20-300                                         |                                                 | 7.5 (pk)                         | 60                                  | 6.0                             | 50                           | 50                                   | 0.4                                             | 26            | 14          |
| ILQ2                                                                                                                                                                                                                                                                                              |                                           | 100 - 500                                      |                                                 |                                  |                                     |                                 | 70                           |                                      |                                                 |               |             |
| ILQ5                                                                                                                                                                                                                                                                                              |                                           | 50 - 400                                       |                                                 |                                  |                                     |                                 | 50                           |                                      |                                                 |               |             |
| ISQ1                                                                                                                                                                                                                                                                                              |                                           | 20                                             |                                                 |                                  |                                     |                                 | 70                           |                                      |                                                 |               |             |
| ISQ5                                                                                                                                                                                                                                                                                              |                                           | 50                                             |                                                 |                                  |                                     |                                 | 50                           |                                      |                                                 |               |             |
| ISQ74                                                                                                                                                                                                                                                                                             |                                           | 12.5 (If = 16mA)                               |                                                 |                                  |                                     |                                 | 50                           |                                      |                                                 |               |             |
|                                                                                                                                                                                                                                                                                                   |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
|                                                                                                                                                                                                                                                                                                   |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| High Isolation Voltage, High CTR, High Sensitivity - Safety Approvals: UL, CSA, VDE 0884 *Note 1                                                                                                                                                                                                  |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                  | Current Transfer Ratio<br>If = 10mA<br>Min (%) | Current Transfer Ratio<br>If = 1.0mA<br>Min (%) | Isolation Breakdown Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>Ir = 10µA<br>Min (V) | BVCEO<br>Ic = 1mA<br>Min (V) | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>If = 10mA<br>Ic = 2mA<br>Max (V)   | Schematic No. | Package No. |
| ISQ201                                                                                                                                                                                                                                                                                            | Four Independent Isolators in one Package | 75 Min                                         | 10                                              | 7.5 (pk)                         | 60                                  | 6.0                             | 70                           | 50                                   | 0.4                                             | 26            | 14          |
| ISQ202                                                                                                                                                                                                                                                                                            |                                           | 125 - 250                                      | 30                                              | 5.3 (rms)                        |                                     |                                 |                              |                                      |                                                 |               |             |
| ISQ203                                                                                                                                                                                                                                                                                            |                                           | 225 - 450                                      | 50                                              |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| ISQ204                                                                                                                                                                                                                                                                                            |                                           | 200 - 400                                      | 100                                             |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
|                                                                                                                                                                                                                                                                                                   |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. ILD1X                                                                                                                                                                                  |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. ILD1XG<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. ILD1XSM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. ILD1XSM T&R |                                           |                                                |                                                 |                                  |                                     |                                 |                              |                                      |                                                 |               |             |

| AC INPUT                                                                                                                                                                                                                                                                                                  |                                                             |                                            |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------|-------------------------------------|----------------------------------------|----------------------------------|--------------------------------|--------------------------------------|--------------------------------------------------|---------------|-------------|
| 4 Pins per Channel and 6 Pin Single Channel - Safety Approvals: UL, VDE 0884, BSI, NEMKO, DEMKO, SEMKO, and FIMKO *Note 1                                                                                                                                                                                 |                                                             |                                            |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| Part Number                                                                                                                                                                                                                                                                                               | Features                                                    | Current Transfer Ratio<br>If = 10mA<br>(%) | Isolation Breakdown Voltage<br>(KV) | Continuous Forward Current<br>Max (mA) | Vf LED<br>If = ± 10mA<br>Max (V) | BVCEO<br>Ic = 0.5mA<br>Min (V) | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>If = ±10mA<br>Ic = 0.5mA<br>Max (V) | Schematic No. | Package No. |
| H11AA1                                                                                                                                                                                                                                                                                                    | 6 Pin DIP<br>AC Input Isolators                             | 20                                         | 7.5 (pk)<br>5.3 (rms)               | 50                                     | 1.5                              | 30<br>(Ic = 1mA)               | 100                                  | 0.4                                              | 32            | 3           |
| H11AA2                                                                                                                                                                                                                                                                                                    |                                                             | 10                                         |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| H11AA3                                                                                                                                                                                                                                                                                                    |                                                             | 50                                         |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| H11AA4                                                                                                                                                                                                                                                                                                    |                                                             | 100                                        |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| CNY35                                                                                                                                                                                                                                                                                                     |                                                             | 10                                         |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| IS604                                                                                                                                                                                                                                                                                                     |                                                             | 50                                         |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| ISP814                                                                                                                                                                                                                                                                                                    | 4 Pin DIP<br>AC Input Isolators                             | 20<br>(If = ± 1mA)                         |                                     |                                        | 1.4<br>(If = ± 20mA)             | 35                             | 100<br>(VCE = 20V)                   | 0.2 (If = ±20mA)<br>(Ic = 1mA)                   | 34            | 12          |
| ISP620-1                                                                                                                                                                                                                                                                                                  |                                                             | 50<br>(If = ± 5mA)                         |                                     |                                        | 1.3                              | 55                             | 100<br>(VCE = 24V)                   | 0.4 (If = ±8mA)<br>(Ic = 2.4mA)                  |               |             |
| ISP626-1                                                                                                                                                                                                                                                                                                  |                                                             | 100 / 50<br>(If = ± 1 / 0.5mA)             |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 0.5mA)                  |               |             |
| PS2505-1                                                                                                                                                                                                                                                                                                  |                                                             | 80 - 600<br>(If = ± 5mA)                   |                                     |                                        | 1.4                              | 80<br>(Ic = 1mA)               | 100<br>(VCE = 80V)                   | 0.3 (If = ±10mA)<br>(Ic = 2mA)                   |               |             |
| SFH620A-1                                                                                                                                                                                                                                                                                                 |                                                             | 40-125                                     |                                     |                                        | 1.65<br>(If = ± 50mA)            | 70                             | 50                                   | 0.4 (If = ±10mA)<br>(Ic = 2.5mA)                 |               |             |
| SFH620A-2                                                                                                                                                                                                                                                                                                 |                                                             | 63-200                                     |                                     |                                        |                                  |                                | 100                                  |                                                  |               |             |
| SFH620A-3                                                                                                                                                                                                                                                                                                 |                                                             | 100-320                                    |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| SFH628-2                                                                                                                                                                                                                                                                                                  |                                                             | 63-200<br>(If = ± 1mA)                     |                                     |                                        | 1.5<br>(If = ± 5mA)              | 55                             | 100                                  | 0.4 (If = ±1mA)<br>(Ic = 0.5mA)                  |               |             |
| SFH628-3                                                                                                                                                                                                                                                                                                  |                                                             | 100-320<br>(If = ± 1mA)                    |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 0.8mA)                  |               |             |
| SFH628-4                                                                                                                                                                                                                                                                                                  |                                                             | 160-500<br>(If = ± 1mA)                    |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 1.25mA)                 |               |             |
| TIL194                                                                                                                                                                                                                                                                                                    |                                                             | 20<br>(If = ± 5mA)                         |                                     |                                        | 1.4<br>(If = ± 20mA)             | 35                             | 100<br>(VCE = 24V)                   | 0.4 (If = ±5mA)<br>(Ic = 1mA)                    |               |             |
| TIL194A                                                                                                                                                                                                                                                                                                   |                                                             | 50<br>(If = ± 5mA)                         |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| TIL194B                                                                                                                                                                                                                                                                                                   |                                                             | 100<br>(If = ± 5mA)                        |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| TLP620                                                                                                                                                                                                                                                                                                    |                                                             | 50<br>(If = ± 5mA)                         |                                     |                                        | 1.3                              | 55                             | 100<br>(VCE = 24V)                   | 0.4 (If = ±8mA)<br>(Ic = 2.4mA)                  |               |             |
| TLP626                                                                                                                                                                                                                                                                                                    |                                                             | 100 / 50<br>(If = ± 1 / 0.5mA)             |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 0.5mA)                  |               |             |
| ISP824                                                                                                                                                                                                                                                                                                    | Two Independent<br>AC Input Isolators<br>in One 8 Pin DIP   | 20<br>(If = ± 1mA)                         |                                     |                                        | 1.4<br>(If = ± 20mA)             | 35                             | 100<br>(VCE = 20V)                   | 0.2 (If = ±20mA)<br>(Ic = 1mA)                   | 38            | 13          |
| ISP620-2                                                                                                                                                                                                                                                                                                  |                                                             | 50<br>(If = ± 5mA)                         |                                     |                                        | 1.3                              | 55                             | 100<br>(VCE = 24V)                   | 0.4 (If = ±8mA)<br>(Ic = 2.4mA)                  |               |             |
| ISP626-2                                                                                                                                                                                                                                                                                                  |                                                             | 100 / 50<br>(If = ± 1 / 0.5mA)             |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 0.5mA)                  |               |             |
| PS2505-2                                                                                                                                                                                                                                                                                                  |                                                             | 80 - 600<br>(If = ± 5mA)                   |                                     |                                        | 1.4                              | 80<br>(Ic = 1mA)               | 100<br>(VCE = 80V)                   | 0.3 (If = ±10mA)<br>(Ic = 2mA)                   |               |             |
| TLP620-2                                                                                                                                                                                                                                                                                                  |                                                             | 50<br>(If = ± 5mA)                         |                                     |                                        | 1.3                              | 55                             | 100<br>(VCE = 24V)                   | 0.4 (If = ±8mA)<br>(Ic = 2.4mA)                  |               |             |
| TLP626-2                                                                                                                                                                                                                                                                                                  |                                                             | 100 / 50<br>(If = ± 1 / 0.5mA)             |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 0.5mA)                  |               |             |
| ISP844                                                                                                                                                                                                                                                                                                    | Four Independent<br>AC Input Isolators<br>in One 16 Pin DIP | 20<br>(If = ± 1mA)                         |                                     |                                        | 1.4<br>(If = ± 20mA)             | 35                             | 100<br>(VCE = 20V)                   | 0.2 (If = ±20mA)<br>(Ic = 1mA)                   | 39            | 14          |
| ISP620-4                                                                                                                                                                                                                                                                                                  |                                                             | 50<br>(If = ± 5mA)                         |                                     |                                        | 1.3                              | 55                             | 100<br>(VCE = 24V)                   | 0.4 (If = ±8mA)<br>(Ic = 2.4mA)                  |               |             |
| ISP626-4                                                                                                                                                                                                                                                                                                  |                                                             | 100 / 50<br>(If = ± 1 / 0.5mA)             |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 0.5mA)                  |               |             |
| PS2505-4                                                                                                                                                                                                                                                                                                  |                                                             | 80 - 600<br>(If = ± 5mA)                   |                                     |                                        | 1.4                              | 80<br>(Ic = 1mA)               | 100<br>(VCE = 80V)                   | 0.3 (If = ±10mA)<br>(Ic = 2mA)                   |               |             |
| TLP620-4                                                                                                                                                                                                                                                                                                  |                                                             | 50<br>(If = ± 5mA)                         |                                     |                                        | 1.3                              | 55                             | 100<br>(VCE = 24V)                   | 0.4 (If = ±8mA)<br>(Ic = 2.4mA)                  |               |             |
| TLP626-4                                                                                                                                                                                                                                                                                                  |                                                             | 100 / 50<br>(If = ± 1 / 0.5mA)             |                                     |                                        |                                  |                                |                                      | 0.4 (If = ±1mA)<br>(Ic = 0.5mA)                  |               |             |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. H11AA1X                                                                                                                                                                                        |                                                             |                                            |                                     |                                        |                                  |                                |                                      |                                                  |               |             |
| * Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. H11AA1XG<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. H11AA1XSM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. H11AA1XSM T&R |                                                             |                                            |                                     |                                        |                                  |                                |                                      |                                                  |               |             |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------|------------------------|-------------------------------------|---------------------------------|--------------------------------|--------------------------------------|-----------------------------------------------|---------------|-------------|--|--|
| With Base Lead - Safety Approvals: UL and VDE 0884 *Note 1                                                                                                                                                                                                                                        |                                                                 |                                                |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                                        | Current Transfer Ratio<br>If = 1mA<br>Min (%)  | Isolation Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>IR = 10µA<br>Min (V) | BVCEO<br>IC = 1mA<br>Min (V)   | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>Max (V)                          | Schematic No. | Package No. |  |  |
| H11B1                                                                                                                                                                                                                                                                                             | Photo Darlington Transistor Detector                            | 500                                            | 7.5 (pk)<br>5.3 (rms)  | 60                                  | 3.0                             | 30                             | 100                                  | 1.0 (If = 1mA)<br>(Ic = 1mA)                  | 6             | 2           |  |  |
| H11B2                                                                                                                                                                                                                                                                                             |                                                                 | 200                                            |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| H11B3                                                                                                                                                                                                                                                                                             |                                                                 | 100                                            |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| MCA2230                                                                                                                                                                                                                                                                                           |                                                                 | 100<br>(If = 10mA)                             |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| MCA2231                                                                                                                                                                                                                                                                                           |                                                                 | 500 / 200<br>(If = 10 / 1mA)<br>(VCE = 5 / 1V) |                        |                                     |                                 |                                |                                      | 1.2 (If = 10mA)<br>(Ic = 50mA)                |               |             |  |  |
| MCA2255                                                                                                                                                                                                                                                                                           |                                                                 |                                                |                        |                                     | 55                              | 1.0 (If = 50mA)<br>(Ic = 50mA) |                                      |                                               |               |             |  |  |
| MCA255                                                                                                                                                                                                                                                                                            |                                                                 | 100<br>(If = 10mA)                             |                        |                                     |                                 |                                |                                      | 1.2 (If = 10mA)<br>(Ic = 50mA)                |               |             |  |  |
| MCA230                                                                                                                                                                                                                                                                                            |                                                                 |                                                |                        |                                     | 30                              |                                |                                      |                                               |               |             |  |  |
| IS660                                                                                                                                                                                                                                                                                             | High Collector to Emitter Breakdown Voltage with over 1000% CTR | 1000<br>(If = 1mA)                             |                        |                                     | 6.0                             | 200                            |                                      | 1.2 (If = 10mA)<br>(Ic = 100mA)               | 25            | 1           |  |  |
| IS661                                                                                                                                                                                                                                                                                             |                                                                 |                                                |                        |                                     |                                 | 300                            |                                      |                                               |               |             |  |  |
| IS662                                                                                                                                                                                                                                                                                             |                                                                 |                                                |                        |                                     |                                 | 400                            |                                      |                                               |               |             |  |  |
| H11G1                                                                                                                                                                                                                                                                                             |                                                                 | 1000 / 500<br>(If = 10 / 1mA)                  |                        |                                     |                                 | 100                            |                                      | 1.0 (If = 10mA)<br>(Ic = 100mA)               |               | 3           |  |  |
| H11G2                                                                                                                                                                                                                                                                                             |                                                                 |                                                |                        |                                     |                                 | 80                             |                                      |                                               |               |             |  |  |
| H11G3                                                                                                                                                                                                                                                                                             |                                                                 | 200                                            |                        |                                     |                                 | 55                             |                                      | 1.2 (If = 20mA)<br>(Ic = 50mA)                |               |             |  |  |
|                                                                                                                                                                                                                                                                                                   |                                                                 |                                                |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
|                                                                                                                                                                                                                                                                                                   |                                                                 |                                                |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| High Sensitivity, without Base Connection - Safety Approvals: UL                                                                                                                                                                                                                                  |                                                                 |                                                |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                                        | Current Transfer Ratio<br>If = 1mA<br>Min (%)  | Isolation Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>IR = 10µA<br>Min (V) | BVCEO<br>IC = 1mA<br>Min (V)   | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>If = 16mA<br>Ic = 2mA<br>Max (V) | Schematic No. | Package No. |  |  |
| H24B1                                                                                                                                                                                                                                                                                             | Photo Darlington Transistor Detector Base Lead not Connected    | 1000 (If = 5mA)                                | 7.5 (pk)<br>5.3 (rms)  | 50                                  | 4.0                             | 30                             | 100                                  | 1.0<br>(If = 5mA)<br>(Ic = 2mA)               | 4             | 4           |  |  |
| H24B2                                                                                                                                                                                                                                                                                             |                                                                 | 400<br>(If = 5mA)                              |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| H24B3                                                                                                                                                                                                                                                                                             |                                                                 | 750<br>(If = 5mA)                              |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| ISPD60                                                                                                                                                                                                                                                                                            |                                                                 | 100                                            |                        | 1000                                |                                 |                                |                                      |                                               |               |             |  |  |
| ISPD61                                                                                                                                                                                                                                                                                            |                                                                 | 500                                            |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| ISPD62                                                                                                                                                                                                                                                                                            |                                                                 | 1000                                           |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| ISPD63                                                                                                                                                                                                                                                                                            |                                                                 | 100                                            |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| ISPD64                                                                                                                                                                                                                                                                                            |                                                                 | 500                                            |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| ISPD65                                                                                                                                                                                                                                                                                            |                                                                 | 1000                                           |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| MOC8020                                                                                                                                                                                                                                                                                           |                                                                 | 500<br>(If = 10mA)                             |                        | 50                                  | 100                             | 1.0                            |                                      |                                               |               |             |  |  |
| MOC8021                                                                                                                                                                                                                                                                                           |                                                                 | 1000<br>(If = 10mA)                            |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| MOC8030                                                                                                                                                                                                                                                                                           |                                                                 | 300<br>(If = 10mA)                             |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| MOC8050                                                                                                                                                                                                                                                                                           |                                                                 | 500<br>(If = 10mA)                             |                        | 80                                  | 1000<br>(VCE = 60V)             |                                |                                      |                                               |               |             |  |  |
| TIL119                                                                                                                                                                                                                                                                                            |                                                                 | 300<br>(If = 10mA)                             |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
|                                                                                                                                                                                                                                                                                                   |                                                                 |                                                |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
|                                                                                                                                                                                                                                                                                                   |                                                                 |                                                |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. H11B1G<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. H11B1SM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. H11B1SM T&R |                                                                 |                                                |                        |                                     |                                 |                                |                                      |                                               |               |             |  |  |

**PHOTO DARLINGTONS**

**With Base Connection - Safety Approvals: UL, VDE 0884, BSI, and SETI \*Note 1**

| Part Number | Features                                                    | Current Transfer Ratio<br>IF = 10mA<br>Min (%) | Isolation Breakdown<br>Voltage<br>KV | Continuous Forward Current<br>Max (mA) | VBR LED<br>IR = 10μA<br>Min (V) | BVCEO<br>IC = 1mA<br>Min (V) | ICEO (Dark)<br>VCE = 10V<br>Max (nA) | VCE (Sat)<br>IF = 8mA<br>IC = 2mA<br>Max (V) | Schematic No. | Package No. |  |  |  |  |
|-------------|-------------------------------------------------------------|------------------------------------------------|--------------------------------------|----------------------------------------|---------------------------------|------------------------------|--------------------------------------|----------------------------------------------|---------------|-------------|--|--|--|--|
| 4N29        | Photo Darlington Transistor Detector<br>Base Lead Connected | 100                                            | 7.5(pk)                              | 60                                     | 3                               | 30                           | 100                                  | 1.0                                          | 6             | 2           |  |  |  |  |
| 4N30        |                                                             | 50                                             |                                      |                                        |                                 |                              |                                      |                                              |               |             |  |  |  |  |
| 4N31        |                                                             | 500                                            | 5.3 (rms)                            |                                        |                                 | 55                           |                                      | 1.0 (IF = 1mA)<br>(IC = 1mA)                 |               |             |  |  |  |  |
| 4N32        |                                                             |                                                |                                      |                                        |                                 |                              |                                      |                                              |               |             |  |  |  |  |
| 4N33        |                                                             |                                                |                                      |                                        |                                 |                              |                                      |                                              |               |             |  |  |  |  |
| MOC8080     |                                                             |                                                |                                      |                                        |                                 |                              |                                      |                                              |               |             |  |  |  |  |

**4 Pins per Channel - Safety Approvals: UL, CSA, NEMKO, DEMKO, SEMKO, and FIMKO**

| Part Number | Features                                                      | Current Transfer Ratio<br>IF = 1mA<br>Min (%) | Isolation Voltage<br>KV | Continuous Forward Current<br>Max (mA) | VBR LED<br>Min (V)<br>(IR = 10µA) | BVCEO<br>Min (V)<br>(IC = 1mA) | ICEO (Dark)<br>Max (µA) | VCE (Sat)<br>Max (V)<br>(IF = 20mA)<br>(IC = 5mA) | Schematic No. | Package No. |
|-------------|---------------------------------------------------------------|-----------------------------------------------|-------------------------|----------------------------------------|-----------------------------------|--------------------------------|-------------------------|---------------------------------------------------|---------------|-------------|
| ISP815      | 4 Pin DIP<br>Photo Darlington Transistor Detector             | 600                                           | 7.5 (pk)                | 50                                     | 6.0                               | 35                             | 1<br>(VCE = 10V)        | 1.0                                               | 35            | 12          |
| PS2502-1    |                                                               | 200                                           |                         |                                        | 5.0<br>(IR = 5µA)                 | 40                             | 0.4<br>(VCE = 40V)      | 1.0 (IF = 1mA)<br>(IC = 2mA)                      |               |             |
| ISP825      | Two Independent Photo Darlington Isolators in one 8 Pin DIP   | 600                                           |                         |                                        | 6.0                               | 35                             | 1<br>(VCE = 10V)        | 1.0                                               | 36            | 13          |
| PS2502-2    |                                                               | 200                                           |                         |                                        | 5.0<br>(IR = 5µA)                 | 40                             | 0.4<br>(VCE = 40V)      | 1.0 (IF = 1mA)<br>(IC = 2mA)                      |               |             |
| ISP845      | Four Independent Photo Darlington Isolators in one 16 Pin DIP | 600                                           |                         |                                        | 6.0                               | 35                             | 1<br>(VCE = 10V)        | 1.0                                               | 37            | 14          |
| PS2502-4    |                                                               | 200                                           |                         |                                        | 5.0<br>(IR = 5µA)                 | 40                             | 0.4<br>(VCE = 40V)      | 1.0 (IF = 1mA)<br>(IC = 2mA)                      |               |             |
| TIL197      | 4 Pin DIP<br>Photo Darlington Transistor Detector             | 500<br>(IF = 2mA)                             |                         |                                        | 5                                 | 35<br>(IC = 0.5mA)             | 0.1<br>(VCE = 10V)      | 1.0 (IF = 2mA)<br>(IC = 10mA)                     | 35            | 12          |
| TIL197A     |                                                               | 1000<br>(IF = 2mA)                            |                         |                                        |                                   |                                |                         |                                                   |               |             |
| TIL197B     |                                                               | 1500<br>(IF = 2mA)                            |                         |                                        |                                   |                                |                         |                                                   |               |             |

\* Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. 4N29X

Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. 4N29XG  
For product with Gull Wing lead form, add "SM" after the basic part number e.g. 4N29XSM  
Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. 4N29XSM T&R

| PHOTO TRANSISTOR                                                                                                                                                                                                                                                                                        |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------|-----------------------------|-------------------------------------|---------------------------------|--------------------------------------|--------------------------------------|---------------|-------------|----|--|--|--|--|
| Low Input Current Photo Transistor - Safety Approvals, CSA, VDE 0884, BSI, NEMKO, FIMKO, SEMKO, DEMKO, and UL *Note 1                                                                                                                                                                                   |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| Part Number                                                                                                                                                                                                                                                                                             | Features                                          | Current Transfer Ratio<br>VCE = 0.4V<br>Min (%)                         | Isolation Test Voltage (KV) | Continuous Forward Current Max (mA) | VBR LED<br>IR = 10µA<br>Min (V) | BVCEO<br>IC = 1mA<br>Min (V)         | ICEO (Dark)<br>VCE = 20V<br>Max (nA) | Schematic No. | Package No. |    |  |  |  |  |
|                                                                                                                                                                                                                                                                                                         |                                                   | IF = 0.5 / 1 mA                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| IS204-1                                                                                                                                                                                                                                                                                                 | 6 Pin DIP<br>Base Lead Connected                  | / 50                                                                    | 7.5 (pk)<br><br>5.3 (rms)   | 50                                  | 5                               | 70                                   | 100                                  | 5             | 1           |    |  |  |  |  |
| IS204-2                                                                                                                                                                                                                                                                                                 |                                                   | 50 /                                                                    |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| IS204-3                                                                                                                                                                                                                                                                                                 |                                                   | 70 / 100                                                                |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| IS205-1                                                                                                                                                                                                                                                                                                 | 6 Pin DIP<br>Base Lead<br>Not Connected           | / 50                                                                    |                             |                                     |                                 |                                      |                                      | 8             |             |    |  |  |  |  |
| IS205-2                                                                                                                                                                                                                                                                                                 |                                                   | 50 /                                                                    |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| IS205-3                                                                                                                                                                                                                                                                                                 |                                                   | 70 / 100                                                                |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISD204-1                                                                                                                                                                                                                                                                                                | Two Independent Isolators in one Package          | / 50                                                                    |                             |                                     |                                 |                                      |                                      | 24            |             | 13 |  |  |  |  |
| ISD204-2                                                                                                                                                                                                                                                                                                |                                                   | 50 /                                                                    |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISD204-3                                                                                                                                                                                                                                                                                                |                                                   | 70 / 100                                                                |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISQ204-1                                                                                                                                                                                                                                                                                                | Four Independent Isolators in one Package         | / 50                                                                    |                             |                                     |                                 |                                      |                                      | 26            |             | 14 |  |  |  |  |
| ISQ204-2                                                                                                                                                                                                                                                                                                |                                                   | 50 /                                                                    |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISQ204-3                                                                                                                                                                                                                                                                                                |                                                   | 70 / 100                                                                |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP817-1                                                                                                                                                                                                                                                                                                | 4 Pin Dip                                         | / 50                                                                    |                             |                                     |                                 |                                      |                                      | 29            |             | 12 |  |  |  |  |
| ISP817-2                                                                                                                                                                                                                                                                                                |                                                   | 50 /                                                                    |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP817-3                                                                                                                                                                                                                                                                                                |                                                   | 70 / 100                                                                |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP827-1                                                                                                                                                                                                                                                                                                | Two Independent In Line Isolators in one Package  | / 50                                                                    |                             |                                     |                                 |                                      |                                      | 28            |             | 13 |  |  |  |  |
| ISP827-2                                                                                                                                                                                                                                                                                                |                                                   | 50 /                                                                    |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP827-3                                                                                                                                                                                                                                                                                                |                                                   | 70 / 100                                                                |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP847-1                                                                                                                                                                                                                                                                                                | Four Independent In Line Isolators in one Package | / 50                                                                    |                             |                                     |                                 |                                      |                                      | 27            |             | 14 |  |  |  |  |
| ISP847-2                                                                                                                                                                                                                                                                                                |                                                   | 50 /                                                                    |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP847-3                                                                                                                                                                                                                                                                                                |                                                   | 70 / 100                                                                |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
|                                                                                                                                                                                                                                                                                                         |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
|                                                                                                                                                                                                                                                                                                         |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| PHOTO DARLINGTON                                                                                                                                                                                                                                                                                        |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| Low Input Current Photo Darlington - Safety Approvals, UL, CSA, NEMKO, FIMKO, SEMKO, and DEMKO                                                                                                                                                                                                          |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| Part Number                                                                                                                                                                                                                                                                                             | Features                                          | Current Transfer Ratio<br>Min (%)<br>VCE = 1V<br>IF = 0.25 / 0.5 / 1 mA | Isolation Test Voltage (KV) | Continuous Forward Current Max (mA) | BVCEO<br>IC = 1mA<br>Min (V)    | ICEO (Dark)<br>VCE = 20V<br>Max (nA) | Schematic No.                        | Package No.   |             |    |  |  |  |  |
| ISP815-1                                                                                                                                                                                                                                                                                                | In Line LED and a Photo Darlington Detector       | / 800                                                                   | 7.5 (pk)<br><br>5.3 (rms)   | 50                                  | 70                              | 100                                  | 35                                   | 12            |             |    |  |  |  |  |
| ISP815-2                                                                                                                                                                                                                                                                                                |                                                   | / 400 / 800                                                             |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP815-3                                                                                                                                                                                                                                                                                                |                                                   | 200 / 400 / 800                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP825-1                                                                                                                                                                                                                                                                                                | Two In Line LEDs and Photo Darlington Detectors   | / 800                                                                   |                             |                                     |                                 |                                      | 36                                   |               | 13          |    |  |  |  |  |
| ISP825-2                                                                                                                                                                                                                                                                                                |                                                   | / 400 / 800                                                             |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP825-3                                                                                                                                                                                                                                                                                                |                                                   | 200 / 400 / 800                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP845-1                                                                                                                                                                                                                                                                                                | Four In Line LEDs and Photo Darlington Detectors  | / 800                                                                   |                             |                                     |                                 |                                      | 37                                   |               | 14          |    |  |  |  |  |
| ISP845-2                                                                                                                                                                                                                                                                                                |                                                   | / 400 / 800                                                             |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| ISP845-3                                                                                                                                                                                                                                                                                                |                                                   | 200 / 400 / 800                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. IS204X1                                                                                                                                                                                      |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. IS204X1G<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. IS204X1SM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. IS204X1SM T&R |                                                   |                                                                         |                             |                                     |                                 |                                      |                                      |               |             |    |  |  |  |  |

# AC INPUT PHOTO TRANSISTORS

Low Input Current 4 Pin Packages - Safety Approvals, UL, CSA, NEMKO, FIMKO, SEMKO, and DEMKO

| Part Number | Features                                           | Current Transfer Ratio<br>Min (%)<br>VCE = 0.4V<br>IF = 0.25 / 0.5 / 1 mA | Isolation<br>Test<br>Voltage<br>(KV) | Continuous<br>Forward<br>Current<br>Max (mA) | BVCEO<br>IC = 1mA<br>Min (V) | ICEO (Dark)<br>VCE = 20V<br>Max (nA) | Schematic<br>No. | Package<br>No. |
|-------------|----------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------|----------------------------------------------|------------------------------|--------------------------------------|------------------|----------------|
| ISP814-1    | Two Infrared LEDs connected<br>in Inverse Parallel | / 80                                                                      | 7.5(pk)<br><br>5.3 (rms)             | 50                                           | 70                           | 100                                  | 34               | 12             |
| ISP814-2    |                                                    | / 40 / 80                                                                 |                                      |                                              |                              |                                      |                  |                |
| ISP814-3    |                                                    | 20 / 40 / 80                                                              |                                      |                                              |                              |                                      |                  |                |
| ISP824-1    | Dual Independent AC Input<br>Isolators             | / 80                                                                      |                                      |                                              |                              |                                      | 38               | 13             |
| ISP824-2    |                                                    | / 40 / 80                                                                 |                                      |                                              |                              |                                      |                  |                |
| ISP824-3    |                                                    | 20 / 40 / 80                                                              |                                      |                                              |                              |                                      |                  |                |
| ISP844-1    | Quad Independent AC Input<br>Isolators             | / 80                                                                      |                                      |                                              |                              |                                      | 39               | 14             |
| ISP844-2    |                                                    | / 40 / 80                                                                 |                                      |                                              |                              |                                      |                  |                |
| ISP844-3    |                                                    | 20 / 40 / 80                                                              |                                      |                                              |                              |                                      |                  |                |

Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. ISP814-1G  
For product with Gull Wing lead form, add "SM" after the basic part number e.g. ISP814-1SM  
Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. ISP814-1SM T&R

| HIGH SPEED TRANSISTOR COUPLERS                                                                                                                                                                                                                                                                                         |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|------------------------------|------------------|-------------|-----|
| Single and Dual Channel 8 Pin DIP; UL Approved                                                                                                                                                                                                                                                                         |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| Part Number                                                                                                                                                                                                                                                                                                            | Features                                    | Current Transfer Ratio Min (%) | Specified Input Current (mA) | Typical Data Rate (NRZ)       | Isolation Voltage Min (KV) rms | Propagation Delay Time        |                              | Schematic No.    | Package No. |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                | VCC = 5V IF = 16mA            |                              |                  |             |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                | tPHL Max (μS)                 | tPLH Max (μS)                |                  |             |     |
| 6N135                                                                                                                                                                                                                                                                                                                  | Single Channel Transistor Output            | 7                              | 16                           | 1Mbits/s                      | 2.5                            | 1.5 (RL = 4.1KΩ)              | 1.5 (RL = 4.1KΩ)             | 11               | 7           |     |
| 6N136                                                                                                                                                                                                                                                                                                                  |                                             | 19                             |                              |                               |                                | 0.8 (RL = 1.9KΩ)              | 0.8 (RL = 1.9KΩ)             | 12*              |             |     |
| ICPL4502                                                                                                                                                                                                                                                                                                               | High C.M.R. 1kV/μS                          |                                |                              |                               |                                | 15                            | 0.8 (RL = 1.9KΩ)             | 0.8 (RL = 1.9KΩ) |             | 13* |
| ICPL2530                                                                                                                                                                                                                                                                                                               | Dual Channel Transistor Output              | 7                              |                              |                               |                                |                               | 1.5 (RL = 4.1KΩ)             | 1.5 (RL = 4.1KΩ) |             | 14  |
| ICPL2531                                                                                                                                                                                                                                                                                                               |                                             | 19                             |                              |                               |                                | 0.8 (RL = 1.9KΩ)              | 0.8 (RL = 1.9KΩ)             | 15*              |             |     |
| ICPL2533                                                                                                                                                                                                                                                                                                               |                                             | 15                             | 8                            | 250Kbits/s                    | 1.5 (RL = 7.5KΩ) (IF = 8mA)    | 2.5 (RL = 7.5KΩ) (IF = 8mA)   | 14                           |                  |             |     |
| * Note: Improved noise shield gives superior Common Mode Rejection                                                                                                                                                                                                                                                     |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| HIGH SPEED HIGH GAIN COUPLERS                                                                                                                                                                                                                                                                                          |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| Single and Dual Channel 8Pin DIP; UL Approved                                                                                                                                                                                                                                                                          |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| Part Number                                                                                                                                                                                                                                                                                                            | Features                                    | Current Transfer Ratio Min (%) | Specified Input Current (mA) | Typical Data Rate (NRZ)       | Isolation Voltage Min (KV) rms | Propagation Delay Time        |                              | Schematic No.    | Package No. |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                | VCC = 5V IF = 16mA            |                              |                  |             |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                | tPHL Max (μS)                 | tPLH Max (μS)                |                  |             |     |
| 6N138                                                                                                                                                                                                                                                                                                                  | Single Channel, High Gain Photo-detector IC | 300                            | 1.6                          | 300Kbits/s                    | 2.5                            | 10 (IF = 1.6mA) (RL = 2.2KΩ)  | 35 (IF = 1.6mA) (RL = 2.2KΩ) | 20               | 7           |     |
| 6N139                                                                                                                                                                                                                                                                                                                  |                                             | 500 / 400                      | 1.6 / 0.5                    |                               |                                | 25 (IF = 0.5mA) (RL = 4.7KΩ)  | 60 (IF = 0.5mA) (RL = 4.7KΩ) | 21*              |             |     |
| ICPL2730                                                                                                                                                                                                                                                                                                               | Dual Channel, High Gain Photo-detector IC   | 300                            | 1.6                          | 20 (IF = 1.6mA) (RL = 2.2KΩ)  |                                | 35 (IF = 1.6mA) (RL = 2.2KΩ)  | 22                           |                  |             |     |
| ICPL2731                                                                                                                                                                                                                                                                                                               |                                             | 500 / 400                      | 1.6 / 0.5                    | 100 (IF = 0.5mA) (RL = 4.7KΩ) |                                | 60 (IF = 0.5mA) (RL = 4.7KΩ)  | 23*                          |                  |             |     |
| IS4N45                                                                                                                                                                                                                                                                                                                 | Single Channel, High Gain Photo-detector IC | 250                            | 1.0                          | 3Kbits/s                      |                                | 50 (IF = 10mA) (RL = 220Ω)    | 500 (IF = 10mA) (RL = 220Ω)  | 25               | 3           |     |
| IS4N46                                                                                                                                                                                                                                                                                                                 |                                             | 500 / 350                      | 1.0 / 0.5                    |                               | 50 (IF = 10mA) (RL = 220Ω)     | 500 (IF = 10mA) (RL = 220Ω)   |                              |                  |             |     |
| * Note: Improved noise shield gives superior Common Mode Rejection                                                                                                                                                                                                                                                     |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| VERY HIGH SPEED LOGIC COUPLERS                                                                                                                                                                                                                                                                                         |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| Single and Dual Channel 8Pin DIP; UL Approved                                                                                                                                                                                                                                                                          |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| Part Number                                                                                                                                                                                                                                                                                                            | Features                                    | Current Transfer Ratio Typ (%) | Specified Input Current (mA) | Typical Data Rate (NRZ)       | Isolation Voltage Min (KV) rms | Propagation Delay Time        |                              | Schematic No.    | Package No. |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                | RL = 350Ω IF = 16μA CL = 15pf |                              |                  |             |     |
|                                                                                                                                                                                                                                                                                                                        |                                             |                                |                              |                               |                                | tPHL Max (nS)                 | tPLH Max (nS)                |                  |             |     |
| 6N137                                                                                                                                                                                                                                                                                                                  | LSTTL / TTL Compatible                      | 700                            | 5                            | 10Mbits/s                     | 2.5                            | 75                            | 75                           | 16               | 7           |     |
| ICPL2601                                                                                                                                                                                                                                                                                                               | As 6N137 w/ higher CMR                      |                                |                              |                               |                                |                               |                              | 17*              |             |     |
| ICPL2611                                                                                                                                                                                                                                                                                                               | As ICPL2601w/ 5000V/μS CMR                  |                                |                              |                               |                                |                               |                              |                  |             |     |
| ICPL2630                                                                                                                                                                                                                                                                                                               | Dual Channel                                |                                |                              |                               |                                |                               |                              |                  |             | 18  |
| ICPL2631                                                                                                                                                                                                                                                                                                               | As ICPL2630 w/ higher CMR                   |                                |                              |                               |                                |                               |                              |                  |             | 19  |
| * Note: Improved noise shield gives superior Common Mode Rejection                                                                                                                                                                                                                                                     |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |
| Special Ordering Options:<br>For product with a 10mm lead spread, add "G" after the basic part number e.g. 6N135G<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. 6N135SM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. 6N135SM T&R |                                             |                                |                              |                               |                                |                               |                              |                  |             |     |

| TRIAC COUPLERS                                                                                                                                                                                                                                                                                       |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------|----------------------------------------------|------------------------------------|---------------------------------------------------------------|----------------------------------------|------------------|----------------|-----|
| Single Channel, 6 Pin DIP - Safety Approvals: UL                                                                                                                                                                                                                                                     |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| Part Number                                                                                                                                                                                                                                                                                          | Features                                                               | Input<br>Trigger<br>Current<br>VTM = 3V<br>Max (mA) | Isolation<br>Test<br>Voltage<br>(KV) | Continuous<br>Forward<br>Current<br>Max (mA) | VBR<br>LED<br>IR = 10uA<br>Min (V) | Peak Off-State<br>Reverse Current<br>VDRM = Rated<br>Max (nA) | Peak<br>Blocking<br>Voltage<br>Min (V) | Schematic<br>No. | Package<br>No. |     |
| H11J1                                                                                                                                                                                                                                                                                                | Infrared Emitter and<br>Light Activated<br>Silicon Bilateral<br>Switch | 10                                                  | 7.5 (pk)<br><br>5.3 (rms)            | 60                                           | 3                                  | 100                                                           | 250                                    | 2                | 2              |     |
| H11J2                                                                                                                                                                                                                                                                                                |                                                                        | 15                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| H11J3                                                                                                                                                                                                                                                                                                |                                                                        | 10                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| H11J4                                                                                                                                                                                                                                                                                                |                                                                        | 15                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| H11J5                                                                                                                                                                                                                                                                                                |                                                                        | 25                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| IS3020                                                                                                                                                                                                                                                                                               |                                                                        | 30                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| IS3021                                                                                                                                                                                                                                                                                               |                                                                        | 15                                                  |                                      |                                              |                                    | 50                                                            | 600                                    |                  |                |     |
| IS6003                                                                                                                                                                                                                                                                                               |                                                                        | 3                                                   |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| IS6005                                                                                                                                                                                                                                                                                               |                                                                        | 5                                                   |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| IS6010                                                                                                                                                                                                                                                                                               |                                                                        | 10                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| IS6015                                                                                                                                                                                                                                                                                               |                                                                        | 15                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| IS6030                                                                                                                                                                                                                                                                                               |                                                                        | 30                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
|                                                                                                                                                                                                                                                                                                      |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
|                                                                                                                                                                                                                                                                                                      |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
|                                                                                                                                                                                                                                                                                                      |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| Single Channel, 6 Pin DIP - Safety Approvals: UL, VDE 0884, and SETI *Note 1                                                                                                                                                                                                                         |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| Part Number                                                                                                                                                                                                                                                                                          | Features                                                               | Input<br>Trigger<br>Current<br>VTM = 3V<br>Max (mA) | Isolation<br>Test<br>Voltage<br>(KV) | Continuous<br>Forward<br>Current<br>Max (mA) | VBR<br>LED<br>IR = 10uA<br>Min (V) | Peak Off-State<br>Reverse Current<br>VDRM = Rated<br>Max (nA) | Peak<br>Blocking<br>Voltage<br>Min (V) | Schematic<br>No. | Package<br>No. |     |
| MOC3009                                                                                                                                                                                                                                                                                              | Infrared Emitter and<br>Light Activated<br>Silicon Bilateral<br>Switch | 30                                                  | 7.5 (pk)<br><br>5.3 (rms)            | 60                                           | 3                                  | 100                                                           | 250                                    | 2                | 2              |     |
| MOC3010                                                                                                                                                                                                                                                                                              |                                                                        | 15                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| MOC3011                                                                                                                                                                                                                                                                                              |                                                                        | 10                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| MOC3012                                                                                                                                                                                                                                                                                              |                                                                        | 5                                                   |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| MOC3020                                                                                                                                                                                                                                                                                              |                                                                        | 30                                                  |                                      |                                              |                                    |                                                               | 400                                    |                  |                |     |
| MOC3021                                                                                                                                                                                                                                                                                              |                                                                        | 15                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| MOC3022                                                                                                                                                                                                                                                                                              |                                                                        | 10                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| MOC3023                                                                                                                                                                                                                                                                                              |                                                                        | 5                                                   |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| IS607                                                                                                                                                                                                                                                                                                |                                                                        | 10                                                  |                                      |                                              |                                    |                                                               |                                        |                  |                | 450 |
| IS608                                                                                                                                                                                                                                                                                                |                                                                        | 7                                                   |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. H11J1X                                                                                                                                                                                    |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. H11J1XG<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. H11J1XSM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. H11J1XSM T&R |                                                                        |                                                     |                                      |                                              |                                    |                                                               |                                        |                  |                |     |

| ZERO CROSSING TRIAC COUPLERS                                                                                                                                                                                                                                                                      |                                                                         |                                                               |                                |                                     |                                 |                                                                       |                                                      |               |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------|-------------------------------------|---------------------------------|-----------------------------------------------------------------------|------------------------------------------------------|---------------|-------------|
| Single Channel, 6 Pin DIP; UL Apporval                                                                                                                                                                                                                                                            |                                                                         |                                                               |                                |                                     |                                 |                                                                       |                                                      |               |             |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                                                | Input Trigger Current<br>VTM = 3V<br>Max (mA)                 | Isolation Test Voltage (KV) pk | Continuous Forward Current Max (mA) | Peak Blocking Voltage Min (V)   | Peak Off-State Reverse Current<br>VDRM = Rated Max (nA)               | Zero Crossing Inhibit Voltage<br>IFT = Rated Max (V) | Schematic No. | Package No. |
| MOC3030                                                                                                                                                                                                                                                                                           | Performs the function of a Zero Voltage Crossing Bilateral Triac Driver | 30                                                            | 7.5 (pk)<br>5.3 (rms)          | 60                                  | 250                             | 300                                                                   | 35                                                   | 1             | 1           |
| MOC3031                                                                                                                                                                                                                                                                                           |                                                                         | 15                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3032                                                                                                                                                                                                                                                                                           |                                                                         | 10                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3033                                                                                                                                                                                                                                                                                           |                                                                         | 5                                                             |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3040                                                                                                                                                                                                                                                                                           |                                                                         | 30                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3041                                                                                                                                                                                                                                                                                           |                                                                         | 15                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3042                                                                                                                                                                                                                                                                                           |                                                                         | 10                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3043                                                                                                                                                                                                                                                                                           |                                                                         | 5                                                             |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3060                                                                                                                                                                                                                                                                                           |                                                                         | 30                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3061                                                                                                                                                                                                                                                                                           |                                                                         | 15                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3062                                                                                                                                                                                                                                                                                           |                                                                         | 10                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| MOC3063                                                                                                                                                                                                                                                                                           |                                                                         | 5                                                             |                                |                                     |                                 |                                                                       |                                                      |               |             |
| IS620                                                                                                                                                                                                                                                                                             |                                                                         | 30                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| IS621                                                                                                                                                                                                                                                                                             |                                                                         | 15                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| IS622                                                                                                                                                                                                                                                                                             |                                                                         | 10                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| IS623                                                                                                                                                                                                                                                                                             |                                                                         | 7                                                             |                                |                                     |                                 |                                                                       |                                                      |               |             |
|                                                                                                                                                                                                                                                                                                   |                                                                         |                                                               |                                |                                     |                                 |                                                                       |                                                      |               |             |
| PHOTO SCR                                                                                                                                                                                                                                                                                         |                                                                         |                                                               |                                |                                     |                                 |                                                                       |                                                      |               |             |
| Single Channel DIP - Safety Approvals: UL, VDE 0884, and SETI *Note 1                                                                                                                                                                                                                             |                                                                         |                                                               |                                |                                     |                                 |                                                                       |                                                      |               |             |
| Part Number                                                                                                                                                                                                                                                                                       | Features                                                                | Input Trigger Current<br>VAK = 100V<br>RGK = 27KΩ<br>Max (mA) | Isolation Test Voltage (KV)    | Continuous Forward Current Max (mA) | VBR LED<br>IR = 10μA<br>Min (V) | Peak Off-State Reverse Voltage<br>RGK = 10KΩ<br>Ta = 100°C<br>Min (V) | On State Voltage<br>ITM = 0.3A<br>Max (V)            | Schematic No. | Package No. |
| H11C1                                                                                                                                                                                                                                                                                             | Infrared LED Emitter and Light Activated Silicon Controlled Rectifier   | 11                                                            | 7.5 (pk)<br>5.3 (rms)          | 60                                  | 3.0                             | 200                                                                   | 1.3                                                  | 33            | 3           |
| H11C2                                                                                                                                                                                                                                                                                             |                                                                         | 14                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| H11C3                                                                                                                                                                                                                                                                                             |                                                                         | 11                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| H11C4                                                                                                                                                                                                                                                                                             |                                                                         | 14                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| H11C5                                                                                                                                                                                                                                                                                             |                                                                         | 11                                                            |                                |                                     |                                 | 400                                                                   |                                                      |               |             |
| H11C6                                                                                                                                                                                                                                                                                             |                                                                         | 14                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| CNY30                                                                                                                                                                                                                                                                                             |                                                                         | 11                                                            |                                |                                     |                                 | 200                                                                   |                                                      |               |             |
| CNY34                                                                                                                                                                                                                                                                                             |                                                                         | 11                                                            |                                |                                     |                                 | 400                                                                   |                                                      |               |             |
| MCS2400                                                                                                                                                                                                                                                                                           |                                                                         | 14                                                            |                                |                                     |                                 | 1.3 (ITM = 100mA)                                                     |                                                      |               |             |
| 4N39                                                                                                                                                                                                                                                                                              |                                                                         | 14                                                            |                                |                                     |                                 | 200                                                                   |                                                      |               |             |
| 4N40                                                                                                                                                                                                                                                                                              |                                                                         | 14                                                            |                                |                                     |                                 | 400                                                                   |                                                      |               |             |
| IS605                                                                                                                                                                                                                                                                                             |                                                                         | 11                                                            |                                |                                     |                                 | 1.3 (ITM = 100mA)                                                     |                                                      |               |             |
| IS606                                                                                                                                                                                                                                                                                             |                                                                         | 14                                                            |                                |                                     |                                 |                                                                       |                                                      |               |             |
| * Note 1: To obtain product tested to the above safety approvals, add "X" after the basic part number e.g. H11C1X                                                                                                                                                                                 |                                                                         |                                                               |                                |                                     |                                 |                                                                       |                                                      |               |             |
| Note 2: For product with a 10mm lead spread, add "G" after the basic part number e.g. H11C1G<br>For product with Gull Wing lead form, add "SM" after the basic part number e.g. H11C1SM<br>Tape & Reel is available on all SMT product by adding T&R after the basic part number e.g. H11C1SM T&R |                                                                         |                                                               |                                |                                     |                                 |                                                                       |                                                      |               |             |

| EMITTER / SENSOR PAIRS     |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
|----------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------|------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|--------------------------------------------------------------------|-------------------------|---------------|-------------|
| Infrared Emitters          |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
| Part Number                | Features                                                                  | Radiant Flux Min (mW)                                                   | Forward Current Max (mA)   | Reverse Voltage Max (V)      | Forward Voltage Max (V)                                                                          | Wave Length Typ (nm)        | Beam Angle Degrees        | Package No.               |                           |                                                                    |                         |               |             |
| IS654A                     | 3 mm Dia. TI Package                                                      | 1.5 (IF = 40mA)                                                         | 60                         | 5                            | 1.6 (IF = 20mA)                                                                                  | 940                         | ± 20                      | 10                        |                           |                                                                    |                         |               |             |
| IS658A                     | Side Emitting                                                             | 0.7 (IF = 20mA)                                                         | 50                         | 5                            | 1.6 (IF = 20mA)                                                                                  | 940                         | ± 30                      | 8                         |                           |                                                                    |                         |               |             |
| IS656A                     | Side Emitting compatible w/ Isocom Schmitt Trigger Detectors              | 0.75 (IF = 20mA)                                                        | 60                         | 3                            | 1.5 (IF = 40mA)                                                                                  | 950                         | ± 13                      | 9                         |                           |                                                                    |                         |               |             |
|                            |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
|                            |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
| Photo Transistor Detectors |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
| Part Number                | Features                                                                  | Collector Current MIN (mA)                                              | Collector Current Max (mA) | BV <sub>CEO</sub> Max (V)    | V <sub>CE</sub> (SAT) Max (V)                                                                    | Wave Length Typ (nm)        | Response Time             |                           | Package No.               |                                                                    |                         |               |             |
|                            |                                                                           |                                                                         |                            |                              |                                                                                                  |                             | t <sub>r</sub> (μs)       | t <sub>f</sub> (μs)       |                           |                                                                    |                         |               |             |
| IS655A                     | 3mm Dia. TI Package                                                       | 1.0<br>V <sub>CE</sub> = 5V<br>E <sub>e</sub> = 1.0mW / cm <sup>2</sup> | 20                         | 35                           | 0.4<br>I <sub>C</sub> = 0.5mA<br>E <sub>e</sub> = 0.5mW / cm <sup>2</sup>                        | 940                         | 40                        | 35                        | 10                        | V <sub>CC</sub> = 20V, I <sub>C</sub> = 1mA, R <sub>L</sub> = 1KΩ  |                         |               |             |
| IS659A                     | Side Emitter                                                              | 0.2<br>V <sub>CE</sub> = 5V<br>E <sub>e</sub> = 1mW / cm <sup>2</sup>   | 20                         | 35                           | 0.4<br>I <sub>C</sub> = 0.1mA<br>E <sub>e</sub> = 0.5mW / cm <sup>2</sup>                        | 940                         | 3 Typ                     | 3.5 Typ                   | 8                         | V <sub>CC</sub> = 2V, I <sub>C</sub> = 2mA, R <sub>L</sub> = 100Ω  |                         |               |             |
| IS659D                     | Side Emitter Photo Darlington Transistor                                  | 0.9<br>V <sub>CE</sub> = 5V<br>E <sub>e</sub> = 0.1mW / cm <sup>2</sup> | 50                         | 35                           | 1.0<br>I <sub>C</sub> = 1.5mA<br>E <sub>e</sub> = 1mW / cm <sup>2</sup>                          | 860                         | 80 Typ                    | 70 Typ                    | 8                         | V <sub>CC</sub> = 2V, I <sub>C</sub> = 10mA, R <sub>L</sub> = 100Ω |                         |               |             |
|                            |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
|                            |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
| Schmitt Trigger Detectors  |                                                                           |                                                                         |                            |                              |                                                                                                  |                             |                           |                           |                           |                                                                    |                         |               |             |
| Part Number                | Features                                                                  | I <sub>O</sub> Max (mA)                                                 | V <sub>CC</sub> Max (mA)   | V <sub>OL</sub> Max (V)      | V <sub>OH</sub> Min (V)                                                                          | I <sub>CCL</sub> Max (mA)   | I <sub>CCH</sub> Max (mA) | t <sub>PHL</sub> Max (μs) | t <sub>PLH</sub> Max (μs) | t <sub>r</sub> Max (μs)                                            | t <sub>f</sub> Max (μs) | Schematic No. | Package No. |
| IS657A                     | Buffer with R <sub>L</sub> connected between V <sub>CC</sub> and Output   | 50                                                                      | 17                         | 0.4 (I <sub>OL</sub> = 16mA) | 3.5 (E <sub>V</sub> = 50lx)                                                                      | 5 (E <sub>V</sub> = 0)      | 3 (E <sub>V</sub> = 50lx) | 15                        | 9                         | 0.5                                                                | 0.5                     | 30            | 11          |
| IS657B                     | Buffer with Open Collector Output                                         |                                                                         | 35                         |                              | I <sub>OH</sub> Max 100μA (V <sub>CC</sub> = 20V) (V <sub>O</sub> = 30V) (E <sub>V</sub> = 50lx) | 4.5 (E <sub>V</sub> = 0)    | 3 (E <sub>V</sub> = 50lx) | 15                        | 9                         | 0.5                                                                | 0.5                     | 31            |             |
| IS657C                     | Inverter with R <sub>L</sub> connected between V <sub>CC</sub> and Output |                                                                         | 17                         |                              | 3.5 (E <sub>V</sub> = 0)                                                                         | 5 (E <sub>V</sub> = 50lx)   | 3 (E <sub>V</sub> = 0)    | 9                         | 15                        | 0.5                                                                | 0.5                     | 30            |             |
| IS657D                     | Inverter with Open Collector Output                                       |                                                                         | 35                         |                              | I <sub>OH</sub> Max 100μA (V <sub>CC</sub> = 20V) (V <sub>O</sub> = 30V) (E <sub>V</sub> = 0x)   | 4.5 (E <sub>V</sub> = 50lx) | 3 (E <sub>V</sub> = 0)    | 9                         | 15                        | 0.5                                                                | 0.5                     | 31            |             |

| SINGLE CHANNEL TRANSISTOR SLOTTED INTERRUPTERS |                   |                |                                                          |       |       |       |                                |                                |                                |                                |
|------------------------------------------------|-------------------|----------------|----------------------------------------------------------|-------|-------|-------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| WITH MOUNTING TABS                             |                   |                |                                                          | H21A1 | H21A2 | H21A3 | ISTS200                        | H21A4                          | H21A5                          | H21A6                          |
| Parameter                                      |                   | Units          | Test Conditions                                          |       |       |       |                                |                                |                                |                                |
| V <sub>F</sub>                                 | Max               | V              | I <sub>F</sub> (mA) =                                    | 50    | 50    | 50    | 50                             | 50                             | 50                             | 50                             |
|                                                |                   |                |                                                          | 1.7   | 1.7   | 1.7   | 1.7                            | 1.7                            | 1.7                            | 1.7                            |
| I <sub>R</sub>                                 | Max               | μA             | V <sub>R</sub> = 5V                                      | 100   | 100   | 100   | 100                            | 100                            | 100                            | 100                            |
| BV <sub>CEO</sub>                              | Max               | V              | I <sub>C</sub> = 1mA                                     | 30    | 30    | 30    | 30                             | 55                             | 55                             | 55                             |
| BV <sub>ECO</sub>                              | Max               | V              | I <sub>E</sub> = 100μA                                   | 5.0   | 5.0   | 5.0   | 5.0                            | 5.0                            | 5.0                            | 5.0                            |
| I <sub>CEO</sub>                               | Max               | nA             | V <sub>CE</sub> = 25V, I <sub>H</sub> = 0                | 100   | 100   | 100   | 100<br>(V <sub>CE</sub> = 10V) | 100<br>(V <sub>CE</sub> = 25V) | 100<br>(V <sub>CE</sub> = 25V) | 100<br>(V <sub>CE</sub> = 25V) |
| V <sub>CE(SAT)</sub>                           | Max<br>Max        | V<br>V         | I <sub>C</sub> (mA) =                                    | 1.8   | 1.8   | 1.8   | 1.8                            | 1.8                            | 1.8                            | 1.8                            |
|                                                |                   |                | I <sub>F</sub> (mA) = 20mA<br>I <sub>F</sub> (mA) = 30mA | 0.4   | 0.4   | 0.4   | 0.4                            | 0.4                            | 0.4                            | 0.4                            |
| I <sub>C</sub> ON                              | Min<br>Min<br>Min | mA<br>mA<br>mA | V <sub>CE</sub> (V) =                                    | 5.0   | 5.0   | 5.0   | 5.0                            | 5.0                            | 5.0                            | 5.0                            |
|                                                |                   |                | I <sub>F</sub> = 5mA                                     | 0.15  | 0.30  | 0.60  |                                | 0.15                           | 0.30                           | 0.60                           |
|                                                |                   |                | I <sub>F</sub> = 20mA                                    | 1.0   | 2.0   | 4.0   |                                | 1.0                            | 2.0                            | 4.0                            |
|                                                |                   |                | I <sub>F</sub> = 30mA                                    | 1.9   | 3.0   | 5.5   | 1.9                            | 1.9                            | 3.0                            | 5.5                            |
| T <sub>ON</sub>                                | Typ               | μS             | V <sub>CC</sub> = 5V, R <sub>L</sub> (KΩ) =              | 2.5   | 2.5   | 2.5   | 2.5                            | 2.5                            | 2.5                            | 2.5                            |
|                                                |                   |                | I <sub>F</sub> = 30mA                                    | 8     | 8     | 8     | 8                              | 8                              | 8                              | 8                              |
| T <sub>OFF</sub>                               | Typ               | μS             | I <sub>F</sub> = 30mA                                    | 50    | 50    | 50    | 50                             | 50                             | 50                             | 50                             |
| Aperature                                      |                   | mm             | Emitter                                                  | 1.0   | 1.0   | 1.0   | 1.0                            | 1.0                            | 1.0                            | 1.0                            |
|                                                |                   | mm             | Sensor                                                   | 1.0   | 1.0   | 1.0   | 1.0                            | 1.0                            | 1.0                            | 1.0                            |
| Package                                        |                   |                |                                                          | 1     | 1     | 1     | 1                              | 1                              | 1                              | 1                              |
| Schematic                                      |                   |                |                                                          | 1     | 1     | 1     | 1                              | 1                              | 1                              | 1                              |

| SINGLE CHANNEL TRANSISTOR SLOTTED INTERRUPTERS |                   |                |                                                          |                                |       |       |       |                                |                                |                                |
|------------------------------------------------|-------------------|----------------|----------------------------------------------------------|--------------------------------|-------|-------|-------|--------------------------------|--------------------------------|--------------------------------|
| WITHOUT MOUNTING TABS                          |                   |                |                                                          | ISTS100                        | H22A1 | H22A2 | H22A3 | H22A4                          | H22A5                          | H22A6                          |
| Parameter                                      |                   | Units          | Test Conditions                                          |                                |       |       |       |                                |                                |                                |
| V <sub>F</sub>                                 | Max               | V              | I <sub>F</sub> (mA) =                                    | 50                             | 50    | 50    | 50    | 50                             | 50                             | 50                             |
|                                                |                   |                |                                                          | 1.7                            | 1.7   | 1.7   | 1.7   | 1.7                            | 1.7                            | 1.7                            |
| I <sub>R</sub>                                 | Max               | μA             | V <sub>R</sub> = 5V                                      | 100                            | 100   | 100   | 100   | 100                            | 100                            | 100                            |
| BV <sub>CEO</sub>                              | Max               | V              | I <sub>C</sub> = 1mA                                     | 30                             | 30    | 30    | 30    | 55                             | 55                             | 55                             |
| BV <sub>ECO</sub>                              | Max               | V              | I <sub>E</sub> = 100mA                                   | 6.0                            | 5.0   | 5.0   | 5.0   | 6.0                            | 6.0                            | 6.0                            |
| I <sub>CEO</sub>                               | Max               | nA             | V <sub>CE</sub> = 25V, I <sub>H</sub> = 0                | 100<br>(V <sub>CE</sub> = 10V) | 100   | 100   | 100   | 100<br>(V <sub>CE</sub> = 25V) | 100<br>(V <sub>CE</sub> = 25V) | 100<br>(V <sub>CE</sub> = 25V) |
| V <sub>CE(SAT)</sub>                           | Max<br>Max        | V<br>V         | I <sub>C</sub> (mA) =                                    | 1.8                            | 1.8   | 1.8   | 1.8   | 1.8                            | 1.8                            | 1.8                            |
|                                                |                   |                | I <sub>F</sub> (mA) = 20mA<br>I <sub>F</sub> (mA) = 30mA | 0.4                            | 0.4   | 0.4   | 0.4   | 0.4                            | 0.4                            | 0.4                            |
| I <sub>C</sub> ON                              | Min<br>Min<br>Min | mA<br>mA<br>mA | V <sub>CE</sub> (V) =                                    | 5.0                            | 5.0   | 5.0   | 5.0   | 5.0                            | 5.0                            | 5.0                            |
|                                                |                   |                | I <sub>F</sub> = 5mA                                     |                                | 0.15  | 0.3   | 0.6   | 0.15                           | 0.3                            | 0.6                            |
|                                                |                   |                | I <sub>F</sub> = 20mA                                    |                                | 1.0   | 2.0   | 4.0   | 1.0                            | 2.0                            | 4.0                            |
|                                                |                   |                | I <sub>F</sub> = 30mA                                    | 1.9                            | 1.9   | 3.0   | 5.5   | 1.9                            | 3.0                            | 5.5                            |
| T <sub>ON</sub>                                | Typ               | μS             | V <sub>CC</sub> = 5V, R <sub>L</sub> (KΩ) =              | 2.5                            | 2.5   | 2.5   | 2.5   | 2.5                            | 2.5                            | 2.5                            |
|                                                |                   |                | I <sub>F</sub> = 30mA                                    | 8                              | 8     | 8     | 8     | 8                              | 8                              | 8                              |
| T <sub>OFF</sub>                               | Typ               | μS             | I <sub>F</sub> = 30mA                                    | 50                             | 50    | 50    | 50    | 50                             | 50                             | 50                             |
| Aperature                                      |                   | mm             | Emitter                                                  | 1.0                            | 1.0   | 1.0   | 1.0   | 1.0                            | 1.0                            | 1.0                            |
|                                                |                   | mm             | Sensor                                                   | 1.0                            | 1.0   | 1.0   | 1.0   | 1.0                            | 1.0                            | 1.0                            |
| Package                                        |                   |                |                                                          | 2                              | 2     | 2     | 2     | 2                              | 2                              | 2                              |
| Schematic                                      |                   |                |                                                          | 1                              | 1     | 1     | 1     | 1                              | 1                              | 1                              |

| SINGLE CHANNEL DARLINGTON TRANSISTOR SLOTTED INTERRUPTERS |     |       |                                                                      |       |       |       |       |       |       |         |
|-----------------------------------------------------------|-----|-------|----------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|---------|
| WITH MOUNTING TABS                                        |     |       |                                                                      | H21B1 | H21B2 | H21B3 | H21B4 | H21B5 | H21B6 | ISTS400 |
| Parameter                                                 |     | Units | Test Conditions                                                      |       |       |       |       |       |       |         |
| V <sub>F</sub>                                            | Max | V     | I <sub>F</sub> = 50mA                                                | 1.7   | 1.7   | 1.7   | 1.7   | 1.7   | 1.7   | 1.7     |
| I <sub>R</sub>                                            | Max | μA    | V <sub>R</sub> = 5V                                                  | 100   | 100   | 100   | 100   | 100   | 100   | 100     |
| BV <sub>CEO</sub>                                         | Max | V     | I <sub>C</sub> = 1mA                                                 | 30    | 30    | 30    | 55    | 55    | 55    | 30      |
| BV <sub>ECO</sub>                                         | Max | V     | I <sub>E</sub> = 100μA                                               | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0     |
| I <sub>CEO</sub>                                          | Max | nA    | V <sub>CE</sub> = 25V, I <sub>H</sub> = 0                            | 100   | 100   | 100   | 100   | 100   | 100   | 100     |
| V <sub>CE(SAT)</sub>                                      | Max | V     | I <sub>F</sub> = 10mA, I <sub>C</sub> = 1.8mA                        | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0     |
|                                                           | Max | V     | I <sub>F</sub> = 50mA, I <sub>C</sub> = 50mA                         |       | 1.5   | 1.5   |       | 1.5   | 1.5   |         |
| I <sub>C ON</sub>                                         |     |       | V <sub>CE</sub> = 1.5V                                               |       |       |       |       |       |       |         |
|                                                           | Min | mA    | I <sub>F</sub> = 2mA                                                 | 0.5   | 1.0   | 2.0   | 0.5   | 1.0   | 2.0   |         |
|                                                           | Min | mA    | I <sub>F</sub> = 5mA                                                 | 2.5   | 5.0   | 10.0  | 2.5   | 5.0   | 10.0  |         |
|                                                           | Min | mA    | I <sub>F</sub> = 10mA                                                | 7.5   | 14.0  | 25.0  | 7.5   | 14.0  | 25.0  | 7.5     |
| T <sub>ON</sub>                                           | Typ | μS    | V <sub>CC</sub> = 5V, R <sub>L</sub> = 750Ω<br>I <sub>F</sub> = 10mA | 45    | 45    | 45    | 45    | 45    | 45    | 45      |
| T <sub>OFF</sub>                                          | Typ | μS    |                                                                      | 250   | 250   | 250   | 250   | 250   | 250   | 250     |
| Aperature                                                 |     | mm    | Emitter                                                              | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0     |
|                                                           |     | mm    | Sensor                                                               | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0     |
| Package                                                   |     |       |                                                                      | 1     | 1     | 1     | 1     | 1     | 1     | 1       |
| Schematic                                                 |     |       |                                                                      | 2     | 2     | 2     | 2     | 2     | 2     | 2       |

  

| SINGLE CHANNEL DARLINGTON TRANSISTOR SLOTTED INTERRUPTERS |     |       |                                                                      |       |       |       |         |       |       |       |
|-----------------------------------------------------------|-----|-------|----------------------------------------------------------------------|-------|-------|-------|---------|-------|-------|-------|
| WITHOUT MOUNTING TABS                                     |     |       |                                                                      | H22B1 | H22B2 | H22B3 | ISTS300 | H22B4 | H22B5 | H22B6 |
| Parameter                                                 |     | Units | Test Conditions                                                      |       |       |       |         |       |       |       |
| V <sub>F</sub>                                            | Max | V     | I <sub>F</sub> = 50mA                                                | 1.7   | 1.7   | 1.7   | 1.7     | 1.7   | 1.7   | 1.7   |
| I <sub>R</sub>                                            | Max | μA    | V <sub>R</sub> = 5V                                                  | 100   | 100   | 100   | 100     | 100   | 100   | 100   |
| BV <sub>CEO</sub>                                         | Max | V     | I <sub>C</sub> = 1mA                                                 | 30    | 30    | 30    | 30      | 55    | 55    | 55    |
| BV <sub>ECO</sub>                                         | Max | V     | I <sub>E</sub> = 100μA                                               | 6.0   | 6.0   | 6.0   | 6.0     | 6.0   | 6.0   | 6.0   |
| I <sub>CEO</sub>                                          | Max | nA    | V <sub>CE</sub> = 25V, I <sub>H</sub> = 0                            | 100   | 100   | 100   | 100     | 100   | 100   | 100   |
| V <sub>CE(SAT)</sub>                                      | Max | V     | I <sub>F</sub> = 10mA, I <sub>C</sub> = 1.8mA                        | 1.0   | 1.0   | 1.0   | 1.0     | 1.0   | 1.0   | 1.0   |
|                                                           | Max | V     | I <sub>F</sub> = 50mA, I <sub>C</sub> = 50mA                         |       | 1.5   | 1.5   |         | 1.5   | 1.5   |       |
| I <sub>C ON</sub>                                         |     |       | V <sub>CE</sub> = 1.5V                                               |       |       |       |         |       |       |       |
|                                                           | Min | mA    | I <sub>F</sub> = 2mA                                                 | 0.5   | 1.0   | 2.0   |         | 0.5   | 1.0   | 2.0   |
|                                                           | Min | mA    | I <sub>F</sub> = 5mA                                                 | 2.5   | 5.0   | 10.0  |         | 2.5   | 2.5   | 10.0  |
|                                                           | Min | mA    | I <sub>F</sub> = 10mA                                                | 7.5   | 14.0  | 25.0  | 7.5     | 7.5   | 14.0  | 25.0  |
| T <sub>ON</sub>                                           | Typ | μS    | V <sub>CC</sub> = 5V, R <sub>L</sub> = 750Ω<br>I <sub>F</sub> = 10mA | 45    | 45    | 45    | 45      | 45    | 45    | 45    |
| T <sub>OFF</sub>                                          | Typ | μS    |                                                                      | 250   | 250   | 250   | 250     | 250   | 250   | 250   |
| Aperature                                                 |     | mm    | Emitter                                                              | 1.0   | 1.0   | 1.0   | 1.0     | 1.0   | 1.0   | 1.0   |
|                                                           |     | mm    | Sensor                                                               | 1.0   | 1.0   | 1.0   | 1.0     | 1.0   | 1.0   | 1.0   |
| Package                                                   |     |       |                                                                      | 2     | 2     | 2     | 2       | 2     | 2     | 2     |
| Schematic                                                 |     |       |                                                                      | 2     | 2     | 2     | 2       | 2     | 2     | 2     |

| DUAL CHANNEL TRANSISTOR SLOTTED INTERRUPTER                                                                                                                                                            |       |                                                |                                                                     |                       |          |                       |                    |          |                        |                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------------------------|---------------------------------------------------------------------|-----------------------|----------|-----------------------|--------------------|----------|------------------------|------------------------|
| Parameter                                                                                                                                                                                              |       | Units                                          | Test Conditions                                                     | WITHOUT MOUNTING TABS |          |                       | WITH MOUNTING TABS |          |                        |                        |
|                                                                                                                                                                                                        |       |                                                |                                                                     | ISTS150               | ISTS832S | ISTS832SD             | ISTS250            | ISTS822S | ISTS822SD              |                        |
| V <sub>F</sub>                                                                                                                                                                                         | Max   | V                                              | I <sub>F</sub> = 20mA                                               | 1.6                   | 1.7      | 1.7                   | 1.6                | 1.7      | 1.7                    |                        |
| I <sub>R</sub>                                                                                                                                                                                         | Max   | μA                                             | V <sub>R</sub> = 3V                                                 | 100                   | 100      | 100                   | 100                | 100      | 100                    |                        |
| BV <sub>CEO</sub>                                                                                                                                                                                      | Max   | V                                              | I <sub>C</sub> = 1mA                                                | 30                    | 30       | 30                    | 30                 | 30       | 30                     |                        |
| BV <sub>ECO</sub>                                                                                                                                                                                      | Max   | V                                              | I <sub>E</sub> = 100μA                                              | 5.0                   | 5.0      | 5.0                   | 5.0                | 5.0      | 5.0                    |                        |
| I <sub>CEO</sub>                                                                                                                                                                                       | Max   | nA                                             | V <sub>CE</sub> = 10V, I <sub>H</sub> = 0                           | 100                   | 100      | 100                   | 100                | 100      | 100                    |                        |
| V <sub>CE(SAT)</sub>                                                                                                                                                                                   | Max   | V                                              | I <sub>F</sub> = 20mA, I <sub>C</sub> = 50μA                        | 0.4                   | 0.4      | 0.4                   | 0.4                | 0.4      | 0.4                    |                        |
|                                                                                                                                                                                                        | Max   | V                                              | I <sub>F</sub> = 20mA, I <sub>C</sub> = 125μA                       |                       |          |                       |                    |          |                        |                        |
| I <sub>C</sub> ON                                                                                                                                                                                      | Min   | mA                                             | V <sub>CE</sub> = 10V<br>I <sub>F</sub> = 20mA                      | 250                   | 250      | 100                   | 250                | 250      | 100                    |                        |
| T <sub>R</sub>                                                                                                                                                                                         | Typ   | μS                                             | V <sub>CC</sub> = 5V, R <sub>L</sub> = 100Ω<br>I <sub>F</sub> = 1mA | 3.0                   |          |                       | 3.0                |          |                        |                        |
| T <sub>F</sub>                                                                                                                                                                                         | Typ   | μS                                             |                                                                     | 3.0                   |          |                       | 3.0                |          |                        |                        |
| Aperature                                                                                                                                                                                              |       | mm                                             | Emitter                                                             |                       |          | 0.25                  |                    |          | 0.25                   |                        |
|                                                                                                                                                                                                        |       | mm                                             | Sensor                                                              |                       | 0.25     | 0.25                  |                    | 0.25     | 0.25                   |                        |
| Package                                                                                                                                                                                                |       |                                                |                                                                     | 5                     | 5        | 5                     | 6                  | 6        | 6                      |                        |
| Schematic                                                                                                                                                                                              |       |                                                |                                                                     | 5                     | 5        | 5                     | 5                  | 5        | 5                      |                        |
| SPECIAL PURPOSE                                                                                                                                                                                        |       |                                                |                                                                     |                       |          |                       |                    |          |                        |                        |
| OPTO-SWITCHES<br>(TRANSISTOR SENSOR)                                                                                                                                                                   |       |                                                | REFLECTIVE SWITCH                                                   |                       |          | FLYING LEAD SWITCH    |                    |          | 5mm GAP SWITCH         |                        |
| Parameter                                                                                                                                                                                              | Units | Test Conditions                                | ISTS149                                                             | ISTS703A              | ISTS708  |                       | ISTS823A           | ISTS824A | ISTS105                | ISTS802                |
| V <sub>F</sub>                                                                                                                                                                                         | Max   | V                                              | I <sub>F</sub> =                                                    | 40                    | 40       | 40                    | 20                 | 20       | 20                     | 10                     |
|                                                                                                                                                                                                        |       |                                                |                                                                     | 1.6                   | 1.7      | 1.7                   | 1.7                | 1.7      | 1.4                    | 1.3                    |
| I <sub>R</sub>                                                                                                                                                                                         | Max   | μA                                             | V <sub>R</sub> = 3V                                                 | 100                   | 100      | 100                   | 100                | 100      | 10                     | 10                     |
| BV <sub>CEO</sub>                                                                                                                                                                                      | Max   | V                                              | I <sub>C</sub> = 1mA                                                | 30                    | 30       | 30                    | 30                 | 30       | 35                     | 30                     |
| BV <sub>ECO</sub>                                                                                                                                                                                      | Max   | V                                              | I <sub>E</sub> = 100μA                                              | 5.0                   | 5.0      | 5.0                   | 5.0                | 5.0      | 6.0                    | 5.0                    |
| I <sub>CEO</sub>                                                                                                                                                                                       | Max   | nA                                             | V <sub>CE</sub> = 15V, I <sub>H</sub> = 0                           | 100                   | 100      | 100                   | 100                | 100      | 100                    | 100                    |
| V <sub>CE(SAT)</sub>                                                                                                                                                                                   |       | I <sub>F</sub> = 40mA, D (mm) =                | 3.8                                                                 | 5.0                   | 3.8      | I <sub>C</sub> (μA) = | 100                | 250      | I <sub>C</sub> = 0.2mA | I <sub>C</sub> = 0.2mA |
|                                                                                                                                                                                                        | Max   |                                                |                                                                     |                       |          |                       |                    |          |                        |                        |
|                                                                                                                                                                                                        | Max   | I <sub>C</sub> = 3μA<br>I <sub>C</sub> = 100μA | 0.4                                                                 | 0.4                   | 0.4      | I <sub>F</sub> = 20mA | 0.4                | 0.4      | I <sub>F</sub> = 20mA  | 0.4                    |
| I <sub>C</sub> ON                                                                                                                                                                                      |       | V <sub>CE</sub> = 5V, D(mm) =                  | 3.8                                                                 | 5.0                   | 3.8      | V <sub>CE</sub> = 10V |                    |          | V <sub>CE</sub> = 5V   | V <sub>CE</sub> = 5V   |
|                                                                                                                                                                                                        | Min   | I <sub>F</sub> = 40mA                          | 25                                                                  | 200                   | 10       | I <sub>F</sub> = 20mA | 200                | 500      | I <sub>F</sub> = 20mA  | 400                    |
| Package                                                                                                                                                                                                |       |                                                | 11                                                                  | 9                     | 10       |                       | 4                  | 4        | 12                     |                        |
| Schematic                                                                                                                                                                                              |       |                                                | 4                                                                   | 4                     | 4        |                       | 3                  | 3        | 1                      | 1                      |
| <b>Note:</b> ISTS802 Series features parts with with or without mounting tabs and with one mounting tab on a preferred side.<br>Please contact your nearest ISOCOM Representative for further details. |       |                                                |                                                                     |                       |          |                       |                    |          |                        |                        |

| ISO-LOGIC SCHMITT TRIGGER INTERRUPTER SWITCH                                                                                                                                                                                                                  |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|--------------------------------------|----------|----------|----------|----------|
| INVERTER OUTPUT                                                                                                                                                                                                                                               |     |          |                                    | H22L1                                                                                                                                                                                                                                                                                | H22L2      | H21L1      | H21L2      | Test Conditions                      | ISTS972T | ISTS973T | ISTS972N | ISTS973N |
| Parameter                                                                                                                                                                                                                                                     |     | Units    | Test Conditions                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| VF                                                                                                                                                                                                                                                            | Max | V        | IF = 20mA                          | 1.6                                                                                                                                                                                                                                                                                  | 1.6        | 1.6        | 1.6        |                                      | 1.7      | 1.7      | 1.7      | 1.7      |
| IR                                                                                                                                                                                                                                                            | Max | μA       | VR = 3V                            | 10                                                                                                                                                                                                                                                                                   | 10         | 10         | 10         | VR = 2V                              | 100      | 100      | 100      | 100      |
| VR                                                                                                                                                                                                                                                            | Min | V        | IF = 10μA                          | 6                                                                                                                                                                                                                                                                                    | 6          | 6          | 6          |                                      | 6        | 6        | 6        | 6        |
| VCC                                                                                                                                                                                                                                                           | Min | V        |                                    | 4                                                                                                                                                                                                                                                                                    | 4          | 4          | 4          |                                      | 4.75     | 4.75     | 4.75     | 4.75     |
|                                                                                                                                                                                                                                                               | Max |          |                                    | 15                                                                                                                                                                                                                                                                                   | 15         | 15         | 15         |                                      | 5.25     | 5.25     | 5.25     | 5.25     |
| VOH                                                                                                                                                                                                                                                           | Typ | V        | Note 1                             |                                                                                                                                                                                                                                                                                      |            |            |            | VCC = 4.75V<br>IOH = 800μA           | Vcc      |          | Vcc      |          |
| VOL                                                                                                                                                                                                                                                           | Min | V        | RL = 270Ω                          |                                                                                                                                                                                                                                                                                      |            |            |            | VCC = 4.75V<br>IO = 12.8mA           |          |          |          |          |
|                                                                                                                                                                                                                                                               | Max |          | VCC = 5V, IF = 30mA                | 0.4                                                                                                                                                                                                                                                                                  | 0.4        | 0.4        | 0.4        |                                      | 0.4      | 0.4      | 0.4      | 0.4      |
| IOH                                                                                                                                                                                                                                                           | Max | μA       | VCC = 15V<br>VO = 15V              | 100                                                                                                                                                                                                                                                                                  | 100        | 100        | 100        | VCC = 4.75V<br>IF = 0mA<br>VOH = 30V |          | 100      |          | 100      |
| ICCL                                                                                                                                                                                                                                                          | Max | mA       | VCC = 5V<br>IF = 20mA              | 5                                                                                                                                                                                                                                                                                    | 5          | 5          | 5          | VCC = 5.25V<br>IF = 15mA             | 15       | 15       | 15       | 15       |
| ICCH                                                                                                                                                                                                                                                          | Min | mA       | VCC = 5V<br>IF = 0mA               | 5                                                                                                                                                                                                                                                                                    | 5          | 5          | 5          | VCC = 5.25V<br>IF = 0mA              | 15       | 15       | 15       | 15       |
|                                                                                                                                                                                                                                                               | Max | mA       |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| TPLH                                                                                                                                                                                                                                                          | Max | μS       | IF = IFT<br>RL = 270Ω<br>CL = 50pF | 15                                                                                                                                                                                                                                                                                   | 15         | 15         | 15         | Note 2                               | 15       | 15       | 15       | 15       |
| TPHL                                                                                                                                                                                                                                                          | Max | μS       |                                    | 9                                                                                                                                                                                                                                                                                    | 9          | 9          | 9          |                                      | 9        | 9        | 9        | 9        |
| TR                                                                                                                                                                                                                                                            | Typ | μS       | VCC = 5V<br>RL = 270Ω<br>CL = 50pF | 0.1                                                                                                                                                                                                                                                                                  | 0.1        | 0.1        | 0.1        | Note 2                               | 0.1      | 0.1      | 0.1      | 0.1      |
| TF                                                                                                                                                                                                                                                            | Typ | μS       |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| IFT                                                                                                                                                                                                                                                           | Max | mA       | VCC = 5V, RL = 270Ω                | 30                                                                                                                                                                                                                                                                                   | 15         | 30         | 15         |                                      | 15       | 15       | 15       | 15       |
| FM                                                                                                                                                                                                                                                            | Max | kHz      | CL = 50pF                          |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| Aperture                                                                                                                                                                                                                                                      |     | mm<br>mm | Emitter<br>Sensor                  | 1.0<br>1.0                                                                                                                                                                                                                                                                           | 1.0<br>1.0 | 1.0<br>1.0 | 1.0<br>1.0 |                                      | 1.0      | 1.0      | 1.0      | 1.0      |
| Package                                                                                                                                                                                                                                                       |     |          |                                    | 7                                                                                                                                                                                                                                                                                    | 7          | 8B         | 8B         |                                      | 8A       | 8A       | 7        | 7        |
| Schematic                                                                                                                                                                                                                                                     |     |          |                                    | 7                                                                                                                                                                                                                                                                                    | 7          | 7          | 7          |                                      | 6        | 7        | 6        | 7        |
| <b>Note 1:</b> The Output is an open collector with the exception of the ISTS972 series.                                                                                                                                                                      |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| <b>Note 2:</b> Output load equivalent to 8 TTL loads with pull up resistor or 360Ω open collector.                                                                                                                                                            |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
|                                                                                                                                                                                                                                                               |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| ABSOLUTE MAXIMUM RATINGS                                                                                                                                                                                                                                      |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
|                                                                                                                                                                                                                                                               |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| Output Photo Transistor                                                                                                                                                                                                                                       |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| Operating Temperature -25°C to +85°C<br>Storage Temperature -40°C to +85°C<br>Soldering Temperature 260°C<br>(3 seconds, 1.6mm below the seating plate)                                                                                                       |     |          |                                    | Emitter - Collector Voltage 5V<br>Collector D.C. Current:<br>Transistor Sensor 20mA<br>Darlington Sensor 50mA                                                                                                                                                                        |            |            |            |                                      |          |          |          |          |
|                                                                                                                                                                                                                                                               |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| Input Diode                                                                                                                                                                                                                                                   |     |          |                                    |                                                                                                                                                                                                                                                                                      |            |            |            |                                      |          |          |          |          |
| Forward D.C. Current 50mA<br>Peak Forward Current 1A (see Note 1)<br>Reverse Voltage (Logic Appls) 6V<br>(Transistor Appls) 5V<br>Power Dissipation:<br>Slotted Interrupter 75mW<br>Reflector 90mW<br><br><b>Note 1:</b> Pulse Width ≤ 100μS, Duty Ratio 0.01 |     |          |                                    | Output with Built-in Schmitt Trigger                                                                                                                                                                                                                                                 |            |            |            |                                      |          |          |          |          |
|                                                                                                                                                                                                                                                               |     |          |                                    | Collector - Emitter Voltage:<br>H21/2L1/L2 ---- 40V ISTS200 ----- 40V<br>ISTS970/972 -- 17V ISTS971/973 -- 40V<br><br>Maximum Allowable Vcc:<br>H21/2L1/L2 ---- 35V ISTS200 ----- 35V<br>ISTS970/972 -- 17V ISTS971/973 -- 35V<br><br>Output Current 50mA<br>Power Dissipation 250mW |            |            |            |                                      |          |          |          |          |

| ISO-LOGIC SCHMITT TRIGGER INTERRUPTER SWITCH                                                                           |       |                 |                                                                                    |                 |                 |                 |                                                    |                 |                       |                 |      |
|------------------------------------------------------------------------------------------------------------------------|-------|-----------------|------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|----------------------------------------------------|-----------------|-----------------------|-----------------|------|
| BUFFER OUTPUT                                                                                                          |       |                 | WITH MOUNTING TABS                                                                 |                 |                 |                 |                                                    |                 | WITHOUT MOUNTING TABS |                 |      |
| Parameter                                                                                                              | Units | Test Conditions | ISTS2001                                                                           | ISTS2002        | ISTS2003        | Test Conditions | ISTS970T                                           | ISTS971T        | ISTS970N              | ISTS971N        |      |
| V <sub>F</sub>                                                                                                         | Max   | V               | I <sub>F</sub> = 20mA                                                              | 1.6             | 1.6             | 1.6             |                                                    | 1.7             | 1.7                   | 1.7             | 1.7  |
| I <sub>R</sub>                                                                                                         | Max   | μA              | V <sub>R</sub> = 3V                                                                | 10              | 10              | 10              | V <sub>R</sub> = 2V                                | 100             | 100                   | 100             | 100  |
| V <sub>R</sub>                                                                                                         | Min   | V               | I <sub>F</sub> = 10μA                                                              | 6               | 6               | 6               |                                                    | 6               | 6                     | 6               | 6    |
| V <sub>CC</sub>                                                                                                        | Min   | V               |                                                                                    | 4.5             | 4.5             | 4.5             |                                                    | 4.75            | 4.75                  | 4.75            | 4.75 |
|                                                                                                                        | Max   |                 |                                                                                    | 16              | 16              | 16              |                                                    | 5.25            | 5.25                  | 5.25            | 5.25 |
| V <sub>OH</sub>                                                                                                        | Typ   | V               | Note 1                                                                             | V <sub>CC</sub> | V <sub>CC</sub> | V <sub>CC</sub> | V <sub>CC</sub> = 4.75V<br>I <sub>OH</sub> = 800μA | V <sub>CC</sub> |                       | V <sub>CC</sub> |      |
| V <sub>OL</sub>                                                                                                        | Min   | V               | I <sub>O</sub> = 16mA                                                              | 0.4             | 0.4             | 0.4             | V <sub>CC</sub> = 4.75V<br>I <sub>O</sub> = 12.8mA | 0.4             | 0.4                   | 0.4             | 0.4  |
|                                                                                                                        | Max   |                 |                                                                                    |                 |                 |                 |                                                    |                 |                       |                 |      |
| I <sub>OH</sub>                                                                                                        | Max   | μA              | V <sub>CC</sub> = 4.75V<br>V <sub>O</sub> = 30V                                    |                 |                 |                 | I <sub>F</sub> = 15mA                              |                 | 100                   |                 | 100  |
| I <sub>CCL</sub>                                                                                                       | Min   | mA              | V <sub>CC</sub> = 5V<br>I <sub>F</sub> = 0mA                                       | 2.0             | 2.0             | 2.0             | V <sub>CC</sub> = 5.25V<br>I <sub>F</sub> = 0mA    | 15              | 15                    | 15              | 15   |
|                                                                                                                        | Max   | mA              |                                                                                    | 12              | 12              | 12              |                                                    |                 |                       |                 |      |
|                                                                                                                        | Min   | mA              | V <sub>CC</sub> = 16V<br>I <sub>F</sub> = 0mA                                      | 2.0             | 2.0             | 2.0             |                                                    |                 |                       |                 |      |
|                                                                                                                        | Max   | mA              |                                                                                    | 15              | 15              | 15              |                                                    |                 |                       |                 |      |
| I <sub>CCH</sub>                                                                                                       | Min   | mA              | V <sub>CC</sub> = 5V<br>I <sub>F</sub> = 0mA                                       | 0.5             | 0.5             | 0.5             | V <sub>CC</sub> = 5.25V<br>I <sub>F</sub> = 15mA   | 15              | 15                    | 15              | 15   |
|                                                                                                                        | Max   | mA              |                                                                                    | 10              | 10              | 10              |                                                    |                 |                       |                 |      |
|                                                                                                                        | Min   | mA              | V <sub>CC</sub> = 16V<br>I <sub>F</sub> = I <sub>FT</sub>                          | 0.5             | 0.5             | 0.5             |                                                    |                 |                       |                 |      |
|                                                                                                                        | Max   | mA              |                                                                                    | 12              | 12              | 12              |                                                    |                 |                       |                 |      |
| T <sub>PLH</sub>                                                                                                       | Typ   | μS              | I <sub>F</sub> = I <sub>FT</sub><br>R <sub>L</sub> = 390Ω<br>C <sub>L</sub> = 50pF | 5               | 5               | 5               |                                                    | 5               | 5                     | 5               | 5    |
| T <sub>PHL</sub>                                                                                                       | Typ   | μS              |                                                                                    | 5               | 5               | 5               |                                                    | 5               | 5                     | 5               | 5    |
| T <sub>R</sub>                                                                                                         | Typ   | μS              | V <sub>CC</sub> = 5V<br>R <sub>L</sub> = 390Ω<br>C <sub>L</sub> = 50pF             | 0.1             | 0.1             | 0.1             | Note 2    Typical                                  | 0.1             | 0.1                   | 0.1             | 0.1  |
| T <sub>F</sub>                                                                                                         | Typ   | μS              |                                                                                    | 0.05            | 0.05            | 0.05            |                                                    | 0.05            | 0.05                  | 0.05            | 0.05 |
| I <sub>FT</sub>                                                                                                        | Max   | mA              | V <sub>CC</sub> = 5V, R <sub>L</sub> = 390Ω                                        | 10              | 20              | 20              |                                                    | 15              | 15                    | 15              | 15   |
| F <sub>M</sub>                                                                                                         | Max   | kHz             | C <sub>L</sub> = 50pF                                                              | 100             | 100             | 100             |                                                    |                 |                       |                 |      |
| Aperature                                                                                                              |       | mm<br>mm        | Emitter<br>Sensor                                                                  |                 | 0.25            | 0.25            |                                                    | 1.0             | 1.0                   | 1.0             | 1.0  |
| Package                                                                                                                |       |                 |                                                                                    | 8B              | 8A              | 8B              |                                                    | 8A              | 8A                    | 7               | 7    |
| Schematic                                                                                                              |       |                 |                                                                                    | 6               | 6               | 6               |                                                    | 6               | 7                     | 6               | 7    |
| <b>Note 1:</b> The Output is tied to V <sub>CC</sub> through a 10KΩ resistor with the exception of the ISTS971 series. |       |                 |                                                                                    |                 |                 |                 |                                                    |                 |                       |                 |      |
| <b>Note 2:</b> Output load equivalent to 8 TTL loads with pull up resistor or 360Ω open collector.                     |       |                 |                                                                                    |                 |                 |                 |                                                    |                 |                       |                 |      |

# SOLID STATE RELAYS

## 8 Pin DIP 600mA

| Part Number | Features                | Input Trigger Current<br>V <sub>D</sub> = 6V<br>Max (mA) | Isolation Breakdown Voltage | Peak Blocking Voltage Min(V) | Zero Crossing Inhibit Voltage IFT = 10mA Max (V) | RMS On-State Current Max (mA) | Forward Voltage IF = 20mA Max (V) | Package No. | Schematic |
|-------------|-------------------------|----------------------------------------------------------|-----------------------------|------------------------------|--------------------------------------------------|-------------------------------|-----------------------------------|-------------|-----------|
| ISRT84006   | Instantaneous Switching | 10                                                       | 4000 RMS                    | 400                          |                                                  | 600                           | 1.4                               | 1           | 1         |
| ISRT86006   |                         |                                                          |                             | 600                          |                                                  |                               |                                   |             |           |
| ISRX84006   | Zero-Crossing Switching | 10                                                       | 4000 RMS                    | 400                          | 35                                               | 600                           | 1.4                               | 1           | 2         |
| ISRX86006   |                         |                                                          |                             | 600                          |                                                  |                               |                                   |             |           |

## 16 Pin DIP 1.2A

| Part Number | Features                | Input Trigger Current<br>V <sub>D</sub> = 6V<br>Max (mA) | Isolation Breakdown Voltage | Peak Blocking Voltage Min(V) | Zero Crossing Inhibit Voltage IFT = 10mA Max (V) | RMS On-State Current Max (A) | Forward Voltage IF = 20mA Max (V) | Package No. | Schematic |
|-------------|-------------------------|----------------------------------------------------------|-----------------------------|------------------------------|--------------------------------------------------|------------------------------|-----------------------------------|-------------|-----------|
| ISRT164012  | Instantaneous Switching | 10                                                       | 4000 RMS                    | 400                          |                                                  | 1.2                          | 1.4                               | 2           | 3         |
| ISRT166012  |                         |                                                          |                             | 600                          |                                                  |                              |                                   |             |           |
| ISRX164012  | Zero-Crossing Switching | 10                                                       | 4000 RMS                    | 400                          | 35                                               | 1.2                          | 1.4                               | 2           | 4         |
| ISRX166012  |                         |                                                          |                             | 600                          |                                                  |                              |                                   |             |           |

## 4 Pin SIP 8-16A

| Part Number | Features                | Input Trigger Current<br>V <sub>D</sub> = 6V<br>Max (mA) | Isolation Breakdown Voltage | Peak Blocking Voltage Min(V) | Zero Crossing Inhibit Voltage IFT = 10mA Max (V) | RMS On-State Current Max (A) | Forward Voltage IF = 20mA Max (V) | Package No. | Schematic |
|-------------|-------------------------|----------------------------------------------------------|-----------------------------|------------------------------|--------------------------------------------------|------------------------------|-----------------------------------|-------------|-----------|
| ISRT44080   | Instantaneous Switching | 8                                                        | 4000 RMS                    | 400                          | 35                                               | 8                            | 1.4                               | 3           | 5         |
| ISRT46080   |                         |                                                          |                             | 600                          |                                                  |                              |                                   |             |           |
| ISRT44160   |                         |                                                          |                             | 400                          |                                                  | 16                           |                                   |             |           |
| ISRT46160   |                         |                                                          |                             | 600                          |                                                  |                              |                                   |             |           |
| ISRX44080   | Zero-Crossing Switching | 8                                                        | 4000 RMS                    | 400                          | 35                                               | 8                            | 1.4                               | 3           | 6         |
| ISRX46080   |                         |                                                          |                             | 600                          |                                                  |                              |                                   |             |           |
| ISRX44160   |                         |                                                          |                             | 400                          |                                                  | 16                           |                                   |             |           |
| ISRX46160   |                         |                                                          |                             | 600                          |                                                  |                              |                                   |             |           |