



## **PRECAUTIONS FOR HANDLING IR EMITTERS**

1. **CLEANING:** IR sources with windows. Use a cotton tipped swab and a 50/50 mixture of isopropyl alcohol (IPA) and water to clean the window. Use light strokes without pressing on the window as this could damage the hermetic seal. Avoid acetone or halogenated solvents.
  - NEVER use an ULTRASONIC CLEANER to clean IR emitters.
  
2. **INPUT POWER:** Do not exceed the maximum (or peak) rated input power of the emitter. Otherwise, the filament could be burned out or the lifetime and output of the emitter may be significantly reduced. Measure the input voltage at the base of the header at the point where the leads come out.

EP-series incandescent lamps must be protected from the large “in-rush” current created by turning the lamp on with a cold start at near or full rated voltage. A ramped voltage is recommended.
  
3. **POWER DISSIPATION:** It is essential to install the emitter with an appropriate heat sink to remove the generated heat. Under no circumstances should the temperature of the package including the base exceed 100 degrees C.
  - A heat sink should attach to the base and/or circumference of the cap. A small block of copper or aluminum preferably with cooling fins would suffice.
  - Use a paste thermal compound rather than a pre-formed pad.
  
4. **SOLDERING:** The same limitations apply as for soldering transistors. When hand soldering observe the following precautions:
  - Use a low wattage microelectronic soldering iron.
  - Use heat sink clips or pliers on lead wires between solder joint and base of package. If heat sinking is not possible then use a minimum soldering iron tip temperature and time to form solder joint.
  - Do not bend leads at sharp angles or twist leads near the base of the package as this may damage the hermetic seals.
  - Clean properly as required after soldering (See Section 1).
  
5. **IR SOURCES WITHOUT WINDOWS:** IR sources without windows should be mounted in a protected environment to avoid damage to the filament caused by dust or dirt and to avoid disruptive air currents.