

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N2906, A
2N2907, A

PNP SILICON TRANSISTOR

JEDEC TO-18 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N2906, A, 2N2907, A types are Silicon PNP Epitaxial Planar Transistors designed for small signal general purpose and switching applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	2N2906 2N2907	2N2906A 2N2907A	UNITS
Collector-Base Voltage	V _{CBO}	60	60	V
Collector-Emitter Voltage	V _{CEO}	40	60	V
Emitter-Base Voltage	V _{EBO}	5.0	5.0	V
Collector Current	I _C	600		mA
Power Dissipation	P _T	0.4		W
Power Dissipation (T _C =25°C)	P _T	1.8		W
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +200		°C
Thermal Resistance	θ _{JA}	438		°C/W
Thermal Resistance	θ _{JC}	97		°C/W

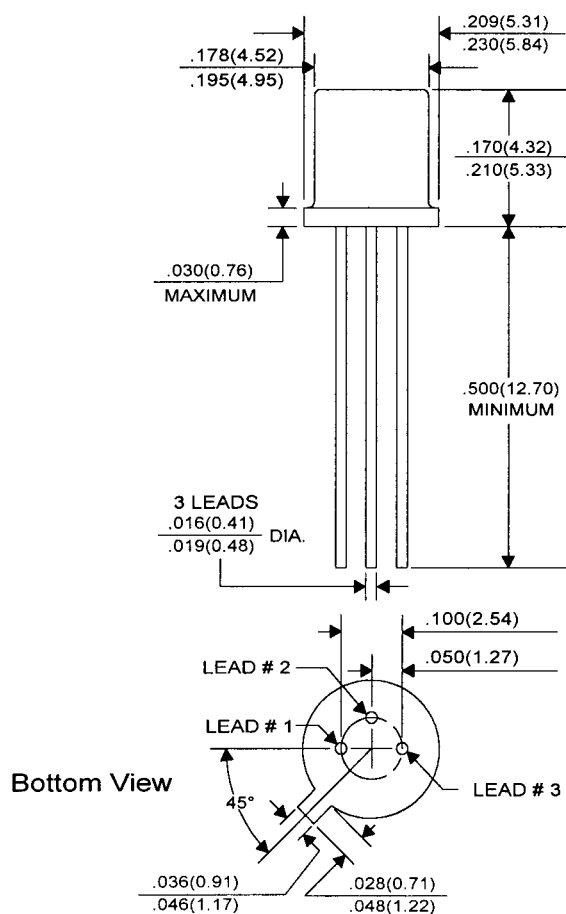
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N2906 2N2907		2N2906A 2N2907A		UNITS
		MIN	MAX	MIN	MAX	
I _{CBO}	V _{CB} =50V		20		10	nA
I _{CBO}	V _{CB} =50V, T _A =150°C		20		10	μA
I _{CEV}	V _{CE} =30V, V _{EB} =0.5		50		50	nA
BV _{CBO}	I _C =10μA	60		60		V
BV _{CEO}	I _C =10mA	40		60		V
BV _{EBO}	I _E =10μA	5.0		5.0		V
V _{CE(SAT)}	I _C =150mA, I _B =15mA		0.4		0.4	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA		1.6		1.6	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA		1.3		1.3	V
V _{BE(SAT)}	I _C =500mA, I _B =50mA		2.6		2.6	V
f _T	V _{CE} =20V, I _C =50mA, f=100MHz	200		200		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		8.0		8.0	pF
C _{ib}	V _{BE} =2.0V, I _C =0, f=1.0MHz		30		30	pF
t _{on}	V _{CC} =30V, I _C =150mA, I _{B1} =15mA		45		45	ns
t _{off}	V _{CC} =6.0V, I _C =150mA, I _{B1} =I _{B2} =15mA		100		100	ns

(Continued on Reverse Side)

ELECTRICAL CHARACTERISTICS (Continued)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>2N2906</u> <u>2N2906A</u>		<u>2N2907</u> <u>2N2907A</u>	
		<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>
h_{FE}	$V_{CE}=10V, I_C=100\mu A$ (2N2906, 2N2907 Only)	20		35	
h_{FE}	$V_{CE}=10V, I_C=100\mu A$ (2N2906A, 2N2907A Only)	40		75	
h_{FE}	$V_{CE}=10V, I_C=1.0mA$ (2N2906, 2N2907 Only)	25		50	
h_{FE}	$V_{CE}=10V, I_C=1.0mA$ (2N2906A, 2N2907A Only)	40		100	
h_{FE}	$V_{CE}=10V, I_C=10mA$ (2N2906, 2N2907 Only)	35		75	
h_{FE}	$V_{CE}=10V, I_C=10mA$ (2N2906A, 2N2907A Only)	40		100	
h_{FE}	$V_{CE}=10V, I_C=150mA$	40	120	100	300
h_{FE}	$V_{CE}=10V, I_C=500mA$ (2N2906, 2N2907 Only)	20		30	
h_{FE}	$V_{CE}=10V, I_C=500mA$ (2N2906A, 2N2907A Only)	40		50	

JEDEC TO-18 CASE - MECHANICAL OUTLINE

All Dimensions in Inches (mm).

Lead Code: 1) Emitter
2) Base
3) Collector

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