

PN2906 PN2906A
PN2907 PN2907A

PNP SILICON TRANSISTOR



TO-92 CASE



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR PN2906, PN2907 series types are silicon PNP epitaxial planar transistors designed for small signal, general purpose switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL	PN2906	PN2906A	UNITS
	PN2907	PN2907A	
V_{CBO}	60	60	V
V_{CEO}	40	60	V
V_{EBO}		5.0	V
I_C		600	mA
P_D		625	mW
T_J, T_{stg}		-65 to +150	$^\circ\text{C}$
θ_{JA}		200	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	PN2906 PN2907		PN2906A PN2907A		UNITS
		MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB}=50\text{V}$	-	20	-	10	nA
I_{CEV}	$V_{CE}=30\text{V}, V_{EB}=0.5\text{V}$	-	50	-	50	nA
BV_{CBO}	$I_C=10\mu\text{A}$	60	-	60	-	V
BV_{CEO}	$I_C=10\text{mA}$	40	-	60	-	V
BV_{EBO}	$I_E=10\mu\text{A}$	5.0	-	5.0	-	V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$	-	0.4	-	0.4	V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$	-	1.6	-	1.6	V
$V_{BE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$	-	1.3	-	1.3	V
$V_{BE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$	-	2.6	-	2.6	V
f_T	$V_{CE}=20\text{V}, I_C=50\text{mA}, f=200\text{MHz}$	200	-	200	-	MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$	-	8.0	-	8.0	pF
C_{ib}	$V_{EB}=2.0\text{V}, I_C=0, f=1.0\text{MHz}$	-	30	-	30	pF
t_{on}	$V_{CC}=30\text{V}, I_C=150\text{mA}, I_{B1}=15\text{mA}$	-	45	-	45	ns
t_{off}	$V_{CC}=6.0\text{V}, I_C=150\text{mA}, I_{B1}=I_{B2}=15\text{mA}$	-	100	-	100	ns

PN2906 PN2906A
PN2907 PN2907A

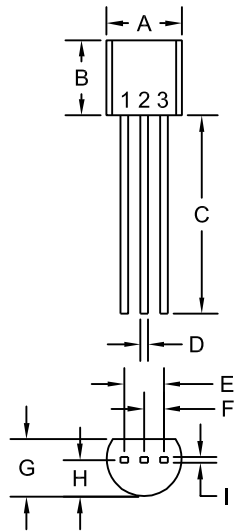
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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$)

SYMBOL	TEST CONDITIONS	PN2906 PN2906A		PN2907 PN2907A	
		MIN	MAX	MIN	MAX
hFE	$V_{CE}=10\text{V}$, $I_C=0.1\text{mA}$ (PN2906, PN2907)	20	-	35	-
hFE	$V_{CE}=10\text{V}$, $I_C=0.1\text{mA}$ (PN2906A, PN2907A)	40	-	75	-
hFE	$V_{CE}=10\text{V}$, $I_C=1.0\text{mA}$ (PN2906, PN2907)	25	-	50	-
hFE	$V_{CE}=10\text{V}$, $I_C=1.0\text{mA}$ (PN2906A, PN2907A)	40	-	100	-
hFE	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$ (PN2906, PN2907)	35	-	75	-
hFE	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$ (PN2906A, PN2907A)	40	-	100	-
hFE	$V_{CE}=10\text{V}$, $I_C=150\text{mA}$	40	120	100	300
hFE	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$ (PN2906, PN2907)	20	-	30	-
hFE	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$ (PN2906A, PN2907A)	40	-	50	-

TO-92 CASE - MECHANICAL OUTLINE



R1

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

LEAD CODE:

- 1) Emitter
- 2) Base
- 3) Collector

MARKING: FULL PART NUMBER

R2 (30-January 2012)