

2N2906 2N2906A
2N2907 2N2907A

PNP SILICON TRANSISTOR



TO-18 CASE



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N2906, 2N2907 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
Power Dissipation ($T_C=25^{\circ}\text{C}$)
Operating and Storage Junction Temperature
Thermal Resistance
Thermal Resistance

SYMBOL	2N2906	2N2906A	UNITS
	2N2907	2N2907A	
V_{CBO}	60	60	V
V_{CEO}	40	60	V
V_{EBO}		5.0	V
I_C		600	mA
P_D		400	mW
P_D		1.8	W
T_J, T_{stg}		-65 to +200	$^{\circ}\text{C}$
θ_{JA}		438	$^{\circ}\text{C/W}$
θ_{JC}		97	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N2906		2N2906A		UNITS
		2N2907	2N2907	2N2907A	2N2907A	
I_{CBO}	$V_{CB}=50\text{V}$	-	20	-	10	nA
I_{CBO}	$V_{CB}=50\text{V}, T_A=150^{\circ}\text{C}$	-	20	-	10	μA
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	$V_{CE}=20\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	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

R4 (30-January 2012)

2N2906 2N2906A
2N2907 2N2907A

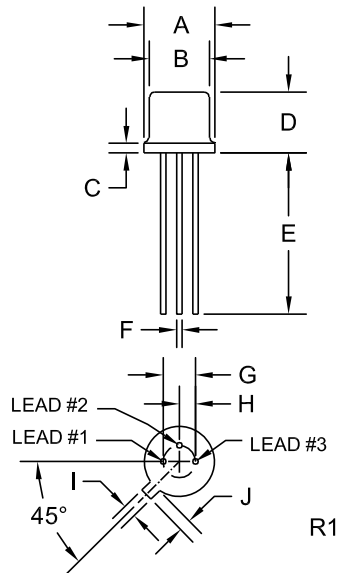
PNP SILICON TRANSISTOR



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

SYMBOL	TEST CONDITIONS	2N2906 2N2906A		2N2907 2N2907A	
		MIN	MAX	MIN	MAX
h_{FE}	$V_{CE}=10\text{V}$, $I_C=0.1\text{mA}$ (2N2906, 2N2907)	20	-	35	-
h_{FE}	$V_{CE}=10\text{V}$, $I_C=0.1\text{mA}$ (2N2906A, 2N2907A)	40	-	75	-
h_{FE}	$V_{CE}=10\text{V}$, $I_C=1.0\text{mA}$ (2N2906, 2N2907)	25	-	50	-
h_{FE}	$V_{CE}=10\text{V}$, $I_C=1.0\text{mA}$ (2N2906A, 2N2907A)	40	-	100	-
h_{FE}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$ (2N2906, 2N2907)	35	-	75	-
h_{FE}	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$ (2N2906A, 2N2907A)	40	-	100	-
h_{FE}	$V_{CE}=10\text{V}$, $I_C=150\text{mA}$	40	120	100	300
h_{FE}	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$ (2N2906, 2N2907)	20	-	30	-
h_{FE}	$V_{CE}=10\text{V}$, $I_C=500\text{mA}$ (2N2906A, 2N2907A)	40	-	50	-

TO-18 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

LEAD CODE:

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

MARKING: FULL PART NUMBER

R4 (30-January 2012)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms



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Product End of Life Notification

PDN ID:	PDN01188
Notification Date:	10/06/21
Last Buy Date:	4/06/22
Last Shipment Date	10/06/22

Summary: The following PNP general purpose transistors are discontinued and now classified as of End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
PN2906A	N/A
PN2906A TRE	N/A
2N2906	N/A
2N2906A	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.