PN2906 PN2906A PN2907 PN2907A

# PNP SILICON TRANSISTOR



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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 <sub>A</sub> =25°C) Collector-Base Voltage	SYMBOL VCBO	PN2906 PN2907 60	<b>PN2906A PN2907A</b> 60	UNITS V
Collector-Emitter Voltage	$V_{CEO}$	40	60	V
Emitter-Base Voltage	$V_{EBO}$	5	.0	V
Continuous Collector Current	IC	60	00	mA
Power Dissipation	$P_{D}$	62	25	mW
Operating and Storage Junction Temperature	Т <sub>Ј</sub> , Т <sub>stg</sub>	-65 to	+150	°C
Thermal Resistance	$\Theta_{\sf JA}$	20	00	°C/W

 $\textbf{ELECTRICAL CHARACTERISTICS:} \ (T_{\mbox{\scriptsize A}} = 25^{\circ}\mbox{C unless otherwise noted})$ 

		PN2906 PN2907		PN2906A PN2907A			
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS	
ICBO	$V_{CB}=50V$	-	20	-	10	nA	
ICEV	$V_{CE}$ =30V, $V_{EB}$ =0.5V	-	50	-	50	nA	
BVCBO	I <sub>C</sub> =10μA	60	-	60	-	V	
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	40	-	60	-	V	
BVEBO	I <sub>E</sub> =10μA	5.0	-	5.0	-	V	
V <sub>CE</sub> (SAT)	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	-	0.4	-	0.4	V	
VCE(SAT)	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	-	1.6	-	1.6	V	
V <sub>BE</sub> (SAT)	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	-	1.3	-	1.3	V	
V <sub>BE</sub> (SAT)	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	-	2.6	-	2.6	V	
f <sub>T</sub>	$V_{CE}$ =20V, $I_{C}$ =50mA, f=200MHz	200	-	200	-	MHz	
C <sub>ob</sub>	$V_{CB}$ =10V, $I_E$ =0, f=1.0MHz	-	8.0	-	8.0	pF	
C <sub>ib</sub>	$V_{EB}$ =2.0V, $I_C$ =0, f=1.0MHz	-	30	-	30	pF	
t <sub>on</sub>	$V_{CC}$ =30V, $I_{C}$ =150mA, $I_{B1}$ =15mA	-	45	-	45	ns	
<sup>t</sup> off	V <sub>CC</sub> =6.0V, I <sub>C</sub> =150mA, I <sub>B1</sub> =I <sub>B2</sub> =15mA	-	100	-	100	ns	

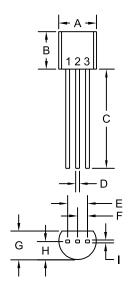
## PN2906 PN2906A PN2907 PN2907A





ELECTRICAL CHARACTERISTICS - Continued: (T <sub>A</sub> =25°C)		PN2906 PN2906A		PN2907 PN2907A	
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =0.1mA (PN2906, PN2907)	20	-	35	-
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =0.1mA (PN2906A, PN2907A)	40	-	75	-
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA (PN2906, PN2907)	25	-	50	-
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA (PN2906A, PN2907A)	40	-	100	-
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA (PN2906, PN2907)	35	-	75	-
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA (PN2906A, PN2907A)	40	-	100	-
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =150mA	40	120	100	300
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA (PN2906, PN2907)	20	-	30	-
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA (PN2906A, PN2907A)	40	-	50	-

# **TO-92 CASE - MECHANICAL OUTLINE**



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

TO-92 (REV: R1)

## LEAD CODE:

- 1) Emitter

R1

2) Base 3) Collector

MARKING: FULL PART NUMBER

R2 (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 guick ship samples (2<sup>nd</sup> 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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# Product End of Life Notification

PDN ID:	PDN01188
Notification Date:	10/06/21
Last Buy Date:	
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@centralsemi.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.

CCC785 REV 002