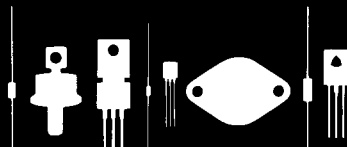


Central  
Semiconductor Corp.

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Semiconductor Corp.**

145 Adams Avenue  
Hauppauge, New York 11788



PN4916  
PN4917

PNP SILICON TRANSISTOR

JEDEC TO-92 CASE (EBC)

## DESCRIPTION

The CENTRAL SEMICONDUCTOR PN4916, PN4917 series types are epoxy molded silicon PNP small signal transistors manufactured by the epitaxial planar process for general purpose amplifier and switching applications.

## MAXIMUM RATINGS (TA=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V <sub>CB0</sub>	30	V
Collector-Emitter Voltage	V <sub>CE0</sub>	30	V
Emitter-Base Voltage	V <sub>EB0</sub>	5.0	V
Collector Current	I <sub>C</sub>	100	mA
Power Dissipation	P <sub>D</sub>	625	mW
Power Dissipation (T <sub>C</sub> =25°C)	P <sub>D</sub>	1.5	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 TO +150	°C

## ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	PN4916		PN4917		UNIT
		MIN	MAX	MIN	MAX	
I <sub>CES</sub>	V <sub>CE</sub> =15V		25		25	nA
I <sub>CES</sub>	V <sub>CE</sub> =15V, T <sub>A</sub> =65°C		25		25	μA
BV <sub>CB0</sub>	I <sub>C</sub> =10μA	30		30		V
BV <sub>CES</sub>	I <sub>C</sub> =10μA	30		30		V
BV <sub>CE0</sub>	I <sub>C</sub> =10mA	30		30		V
BV <sub>EB0</sub>	I <sub>E</sub> =10μA	5.0		5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =1.0mA, I <sub>B</sub> =0.1mA		0.13		0.13	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA		0.14		0.14	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		0.3		0.3	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =1.0mA, I <sub>B</sub> =0.1mA		0.75		0.75	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA	0.7	0.9	0.7	0.9	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA	0.75	1.1	0.75	1.1	V
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =100μA	40	-	100	-	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =1.0mA	60	-	150	-	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =10mA	70	200	150	300	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =50mA	15	-	30	-	
f <sub>T</sub>	V <sub>CE</sub> =20V, I <sub>C</sub> =10mA, f=100MHz	400		450		MHz
C <sub>ob</sub>	V <sub>CE</sub> =10V, I <sub>E</sub> =0,		4.5		4.5	pF
C <sub>ib</sub>	V <sub>EB</sub> =0.5V, I <sub>C</sub> =0,		8.0		8.0	pF
t <sub>on</sub>	I <sub>C</sub> =50mA, I <sub>B1</sub> =5.0mA		40		40	ns
t <sub>off</sub>	I <sub>C</sub> =50mA, I <sub>B1</sub> =5.0mA, I <sub>B2</sub> =5.0mA		150		150	ns
t <sub>rb</sub> C <sub>c</sub>	V <sub>CE</sub> =20V, I <sub>C</sub> =10mA, f=80MHz		50		50	ps
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA, R <sub>S</sub> =100Ω, B <sub>W</sub> =15MHz, f=100MHz		6.0		6.0	dB
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100μA, R <sub>S</sub> =1.0kΩ, B <sub>W</sub> =15.7kHz, 3.0 dB Points @ 10Hz and 10kHz		4.0		4.0	dB

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick 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

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### 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).

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### CONTACT US

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**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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