

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N4248  
2N4249  
2N4250  
2N4250A

SILICON PNP TRANSISTOR

JEDEC TO-106 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4248 Series Types are Silicon PNP Transistors designed for low level - low noise amplifier applications.

## MAXIMUM RATINGS (T<sub>A</sub>=25°C)

	SYMBOL	2N4248 2N4250	2N4249 2N4250A	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	40	60	V
Collector-Emitter Voltage	V <sub>CES</sub>	40	60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	60	V
Emitter-Base Voltage	V <sub>EB0</sub>	5.0	5.0	V
Power Dissipation	P <sub>D</sub>	200	200	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 TO +150		°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

SYMBOL		2N4248		2N4249		2N4250		2N4250A		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
I <sub>CB0</sub>	V <sub>CB</sub> =40V (2N4250A V <sub>CB</sub> =50V)	10		10		10		10		nA
I <sub>EB0</sub>	V <sub>EB</sub> =3.0V		20		20		20		20	nA
BV <sub>CB0</sub>	I <sub>C</sub> =10μA	40		60		40		60		V
BV <sub>CES</sub>	I <sub>C</sub> =10μA	40		60		40		60		V
BV <sub>CEO</sub>	I <sub>C</sub> =5.0mA	40		60		40		60		V
BV <sub>EB0</sub>	I <sub>E</sub> =10μA	5.0		5.0		5.0		5.0		V
V <sub>CE(s)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA		0.25		0.25		0.25		0.25	V
V <sub>BE(s)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA		0.9		0.9		0.9		0.9	V
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100μA	50		100	300	250	700	250	700	
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA	50		100		250		---		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA	50		100		250		---		
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =0.5mA, f=20MHz	40		40		50		---		MHz
C <sub>ob</sub>	V <sub>CB</sub> =5.0V, f=1.0MHz	6.0		6.0		6.0		6.0		pF
C <sub>ib</sub>	V <sub>EB</sub> =0.5V, f=1.0MHz		16		16		16		---	pF
NF	Wide Band, V <sub>CE</sub> =5.0V, I <sub>C</sub> =20μA, R <sub>s</sub> =100KΩ PBW=15.7kHz, f=10Hz TO 10kHz		---		3.0		2.0		2.0	dB
NF	Narrow Band, V <sub>CE</sub> =5.0V, I <sub>C</sub> =20μA, R <sub>s</sub> =10KΩ PBW=150Hz, f=1.0kHz		---		3.0		2.0		2.0	dB