

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

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Manufacturers of World Class Discrete Semiconductors

2N5400  
2N5401

PNP SILICON TRANSISTOR

JEDEC TO-92 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5400, 2N5401 types are epoxy molded PNP Silicon Transistors designed for high voltage amplifier applications.

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

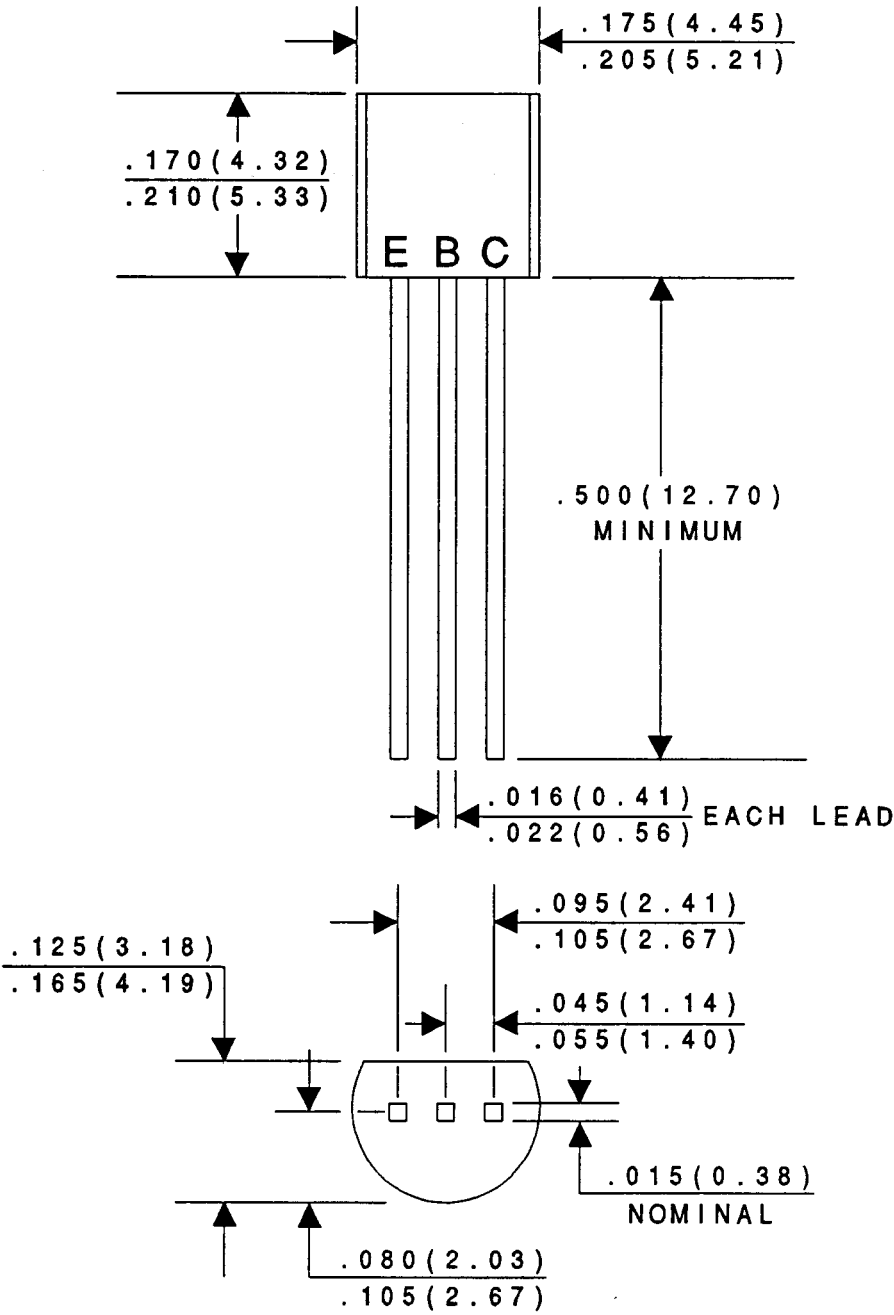
	SYMBOL	2N5400	2N5401	UNITS
Collector-Base Voltage	V <sub>CB0</sub>	130	160	V
Collector-Emitter Voltage	V <sub>CEO</sub>	120	150	V
Emitter-Base Voltage	V <sub>EBO</sub>		5.0	V
Continuous Collector Current	I <sub>C</sub>	600		mA
Power Dissipation	P <sub>D</sub>		625	mW
Operating and Storage				
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150		°C
Thermal Resistance	θ <sub>JA</sub>	200		°C/W

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

SYMBOL	TEST CONDITIONS	2N5400		2N5401		UNITS
		MIN	MAX	MIN	MAX	
I <sub>CB0</sub>	V <sub>CB</sub> = 100V		100		-	nA
I <sub>CB0</sub>	V <sub>CB</sub> = 100V, T <sub>A</sub> = 100°C		100		-	μA
I <sub>CB0</sub>	V <sub>CB</sub> = 120V		-		50	nA
I <sub>CB0</sub>	V <sub>CB</sub> = 120V, T <sub>A</sub> = 100°C		-		50	μA
I <sub>EBO</sub>	V <sub>EB</sub> = 3.0V		50		50	nA
BV <sub>CB0</sub>	I <sub>C</sub> = 100μA	130		160		V
BV <sub>CEO</sub>	I <sub>C</sub> = 1.0mA	120		150		V
BV <sub>EBO</sub>	I <sub>E</sub> = 10μA	5.0		5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1.0mA		0.2		0.2	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 5.0mA		0.5		0.5	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1.0mA		1.0		1.0	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 5.0mA		1.0		1.0	V
h <sub>FE</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 1.0mA	30		50		
h <sub>FE</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 10mA	40	240	60	240	
h <sub>FE</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 50mA	40		50		
f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA, f = 100MHz	100	400	100	300	MHz
C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1.0MHz		6.0		6.0	pF
h <sub>fe</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1.0mA, f = 1.0kHz	30	200	40	200	
NF	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 250μA, R <sub>S</sub> = 1kΩ, f = 10Hz to 15.7kHz		8.0		8.0	dB

(SEE REVERSE SIDE)

**JEDEC TO-92 CASE - MECHANICAL OUTLINE**



All Dimensions in Inches (mm).