

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

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Manufacturers of World Class Discrete Semiconductors

2N5550  
2N5551

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5550 Series types are Molded Epoxy Silicon NPN Transistors designed for high voltage amplifier applications.

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

	SYMBOL	2N5550	2N5551	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	160	180	V
Collector-Emitter Voltage	V <sub>CEO</sub>	140	160	V
Emitter-Base Voltage	V <sub>EBO</sub>		6.0	V
Collector Current	I <sub>C</sub>	600		mA
Power Dissipation	P <sub>D</sub>	625		mW
Power Dissipation (T <sub>C</sub> =25°C)	P <sub>D</sub>	1.0		W
Operating and Storage Temp.	T <sub>J</sub> , T <sub>stg</sub>	-65 TO +150		°C
Thermal Resistance	θ <sub>JA</sub>	0.2		°C/mW
Thermal Resistance	θ <sub>JC</sub>	125		°C/W

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

SYMBOL	TEST CONDITIONS	2N5550		2N5551		UNIT
		MIN	MAX	MIN	MAX	
I <sub>CB0</sub>	V <sub>CB</sub> =100V		100	-		nA
I <sub>CB0</sub>	V <sub>CB</sub> =120V		-	50		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, T <sub>A</sub> =100°C		-	50		μA
I <sub>EBO</sub>	V <sub>EB</sub> =4.0V		50	50		nA
BV <sub>CB0</sub>	I <sub>C</sub> =100μA	160		180		V
BV <sub>CEO</sub>	I <sub>C</sub> =1.0mA	140		160		V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	6.0		6.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA		0.15		0.15	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		0.25		0.20	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		1.2		1.0	V
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA	60		80		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA	60	250	80	250	
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =50mA	20		30		
h <sub>fe</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA, f=1.0kHz	50	200	50	200	
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=100MHz	100	300	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
C <sub>ib</sub>	V <sub>BE</sub> =0.5V, I <sub>C</sub> =0, f=1.0MHz		30		20	pF
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =250μA, R <sub>S</sub> =1.0Ω, f=10Hz TO 15.7kHz		10		8.0	dB