

CentralTM 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_A=25°C unless otherwise noted)

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

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N5550		2N5551		UNIT
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =100V		100	-		nA
I _{CB0}	V _{CB} =120V		-	50		nA
I _{CB0}	V _{CB} =100V, T _A =100°C		100	-		μA
I _{CB0}	V _{CB} =120V, T _A =100°C		-	50		μA
I _{EBO}	V _{EB} =4.0V		50	50		nA
BV _{CB0}	I _C =100μA	160		180		V
BV _{CEO}	I _C =1.0mA	140		160		V
BV _{EBO}	I _E =10μA	6.0		6.0		V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.15		0.15	V
V _{CE(SAT)}	I _C =50mA, I _B =5.0mA		0.25		0.20	V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA		1.0		1.0	V
V _{BE(SAT)}	I _C =50mA, I _B =5.0mA		1.2		1.0	V
h _{FE}	V _{CE} =5.0V, I _C =1.0mA	60		80		
h _{FE}	V _{CE} =5.0V, I _C =10mA	60	250	80	250	
h _{FE}	V _{CE} =5.0V, I _C =50mA	20		30		
h _{fe}	V _{CE} =10V, I _C =1.0mA, f=1.0kHz	50	200	50	200	
f _T	V _{CE} =10V, I _C =10mA, f=100MHz	100	300	100	300	MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		6.0		6.0	pF
C _{ib}	V _{BE} =0.5V, I _C =0, f=1.0MHz		30		20	pF
NF	V _{CE} =5.0V, I _C =250μA, R _S =1.0Ω, f=10Hz TO 15.7kHz		10		8.0	dB