Data Sheet

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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_{CBO}	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 MIN	2N5550 MAX	2N5551 MIN	2N5551 MAX	UNIT
I_{CBO}	V_{CB}=100V		100		-	nA
I_{CBO}	V_{CB}=120V		-		50	nA
I_{CBO}	V_{CB}=100V, T_A=100°C		100		-	µA
I_{CBO}	V_{CB}=120V, T_A=100°C		-		50	µA
I_{EBO}	V_{EB}=4.0V		50		50	nA
BV_{CBO}	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