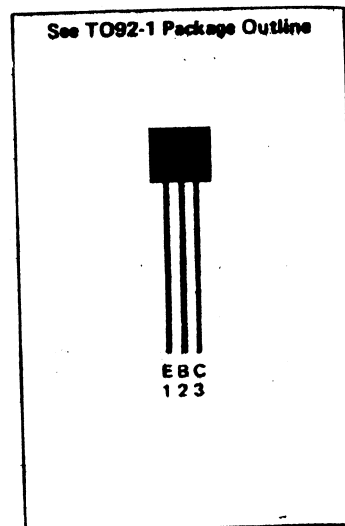


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NPN SMALL SIGNAL HIGH VOLTAGE GENERAL PURPOSE AMPLIFIER
 DIFFUSED SILICON PLANAR* EPITAXIAL TRANSISTORS

2N5551



ABSOLUTE MAXIMUM RATINGS (Note 1)

† Maximum Temperatures	-55°C to +150°C
Storage Temperature	150°C
Operating Junction Temperature	260°C
Lead Temperature (10 seconds)	
† Maximum Power Dissipation (Notes 2 & 3)	0.625 W
Total Dissipation at 25°C Ambient Temperature at 25°C Case Temperature	1.0 W
Maximum Voltages and Current	180 V
V _{CBO} Collector to Base Voltage	160 V
V _{CEO} Collector to Emitter Voltage (Note 4)	6.0 V
V _{EBO} Emitter to Base Voltage	600 mA
I _C Collector Current	

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN.	MAX.	UNITS	TEST CONDITIONS
BV _{CEO}	Collector to Emitter Breakdown Voltage	160		V	I _C = 1.0 mA, I _B = 0
BV _{CBO}	Collector to Base Breakdown Voltage	180		V	I _C = 100 μA, I _E = 0
BV _{EBO}	Emitter to Base Breakdown Voltage	6.0		V	I _E = 10 μA, I _C = 0
I _{CBO}	Collector Cutoff Current		50	nA	V _{CB} = 100 V, I _E = 0
			50	nA	V _{CB} = 120 V, I _E = 0
			50	μA	V _{CB} = 100 V, I _E = 0, T _A = 100°C
			50	μA	V _{CB} = 120 V, I _E = 0, T _A = 100°C
I _{EBO}	Emitter Cutoff Current		50	nA	V _{EB} = 4.0 V, I _C = 0
h _{FE}	DC Pulse Current Gain (Note 5)	80			I _C = 1.0 mA, V _{CE} = 5.0 V
		80	250		I _C = 10 mA, V _{CE} = 5.0 V
		30			I _C = 50 mA, V _{CE} = 5.0 V
V _{CE(sat)}	Collector Saturation Voltage (Note 5)		0.15	V	I _C = 10 mA, I _B = 1.0 mA
			0.20	V	I _C = 50 mA, I _B = 5.0 mA
V _{BE(sat)}	Base Saturation Voltage (Note 5)		1.0	V	I _C = 10 mA, I _B = 1.0 mA
			1.0	V	I _C = 50 mA, I _B = 5.0 mA
C _{ob}	Output Capacitance		6.0	pF	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz
C _{ib}	Input Capacitance		30	pF	V _{EB} = 0.5 V, I _C = 0, f = 1.0 MHz
f _T	Current Gain Bandwidth Product	100	300	MHz	I _C = 10 mA, V _{CE} = 10 V, f = 100 MHz
h _{fe}	Small Signal Current Gain	50	200		I _C = 1.0 mA, V _{CE} = 10 V, f = 1.0 kHz
NF	Noise Figure		8.0	dB	I _C = 250 μA, V _{CE} = 5.0 V, R _S = 1.0 kΩ, f = 10 Hz to 15.7 kHz