

Transistors

2N5550

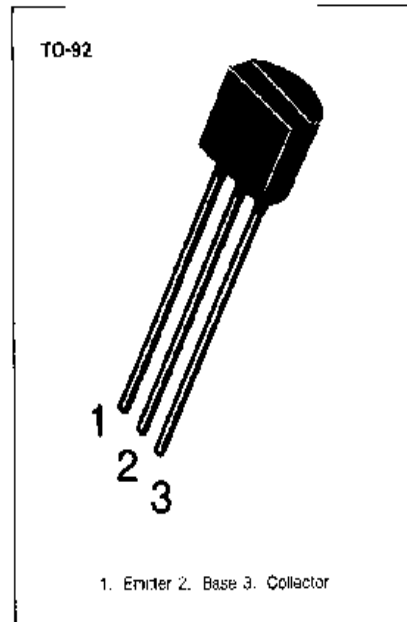
AMPLIFIER TRANSISTOR

- Collector-Emitter Voltage: $V_{CE0}=140V$
- Collector Dissipation: $P_C (max)=625mW$

ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}C$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	140	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55 ~ 150	$^{\circ}C$

- Refer to 2N5551 for graphs



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu A, I_E=0$	160			V
*Collector-Emitter Saturation Voltage	BV_{CEO}	$I_C=1mA, I_B=0$	140			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu A, I_C=0$	6			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=100V, I_E=0$			100	nA
Emitter Cut-off Current	I_{EBO}	$V_{BE}=4V, I_C=0$			50	nA
*DC Current Gain	h_{FE}	$I_C=1mA, V_{CE}=5V$	60			
		$I_C=10mA, V_{CE}=5V$	60		250	
		$I_C=50mA, V_{CE}=5V$	20			
*Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			0.15	V
		$I_C=50mA, I_B=5mA$			0.25	V
*Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$			1	V
		$I_C=50mA, I_B=5mA$			1.2	V
Current Gain Bandwidth Product	f_T	$I_C=10mA, V_{CE}=10V$	100		300	MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0$ $f=1MHz$			6	pF
Noise Figure	NF	$I_C=250\mu A, V_{CE}=5V$ $R_S=1K\Omega$ $f=10Hz$ to $15.7KHz$			10	dB

- * Pulse Test: Pulse Width=300 μ S, Duty Cycle=2%

