

Transistors

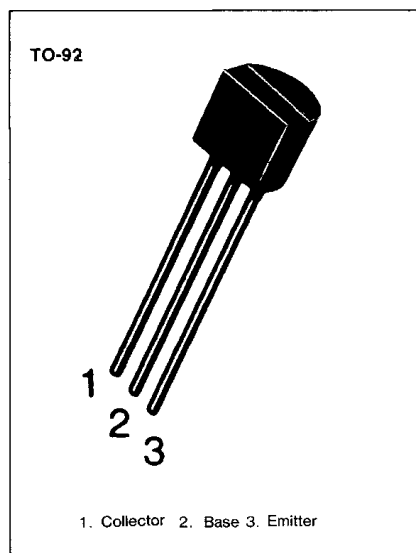
BC558

SWITCHING AND AF AMPLIFIER

- HIGH VOLTAGE
- LOW NOISE

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

Characteristic	Symbol	Rating	Unit
Collector Base Capacitance	V_{CBO}		
Collector Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-100	mA
Collector Dissipation	P_C	500	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~150	$^\circ\text{C}$



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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$			-15	nA
DC Current Gain	h_{FE}	$V_{CE} = -5\text{V}, I_C = 2\text{mA}$	110		800	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -0.5\text{mA}$ $I_C = -100\text{mA}, I_B = -5\text{mA}$		-90 -250	-300 -650	mV
Collector Base Saturation Voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -0.5\text{mA}$ $I_C = -100\text{mA}, I_B = -5\text{mA}$		-700 -900		mV
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	-600	-660	-750	mV
Current Gain Bandwidth Product	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$		150	-800	MHz
Collector Base Capacitance	C_{CBO}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$			6	pF
Noise Figure	NF	$V_{CE} = -5\text{V}, I_C = -200\mu\text{A}$		2	10	dB

h_{FE} CLASSIFICATION

Classification	A	B	C
h_{FE}	110-220	200-450	420-800

