

Transistors

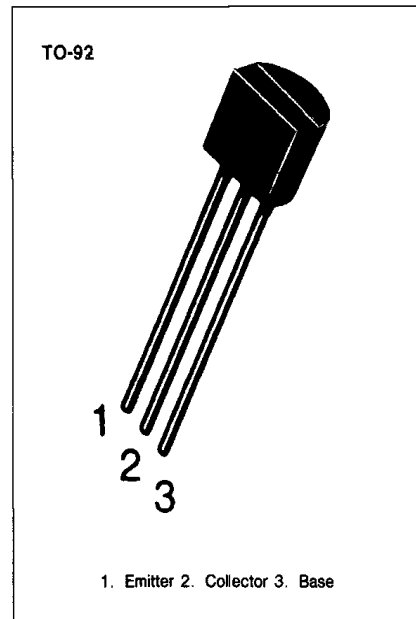
BC637

SWITCHING AND AMPLIFIER APPLICATIONS

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

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage at $R_{BE} = 1\text{Kohm}$	V_{CER}	60	V
Collector Emitter Voltage	V_{CES}	60	V
Collector Emitter Voltage	V_{CEO}	60	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Peak Collector Current	I_{CP}	1.5	A
Base Current	I_B	100	mA
Collector Dissipation	P_C	1	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 ~ 150	$^\circ\text{C}$

* PW = 5mS, Duty Cycle = 10%



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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = 10\text{mA}$, $I_B = 0$	60			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 30\text{V}$, $I_E = 0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = 2\text{V}$, $I_C = 5\text{mA}$	25			
			40		160	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$V_{CE} = 2\text{V}$, $I_C = 500\text{mA}$	25		0.5	V
Base Emitter On Voltage	$V_{BE(on)}$	$I_C = 500\text{mA}$, $I_B = 50\text{mA}$			1	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 2\text{V}$, $I_C = 500\text{mA}$		100		MHz
		$V_{CE} = 5\text{V}$, $I_C = 10\text{mA}$, $f = 50\text{MHz}$				



