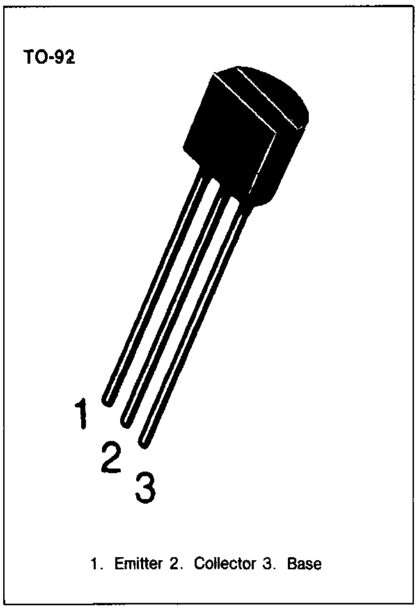
Transistors
BC638

USHA
(INDIA) LTD

SWITCHING AND AMPLIFIER APPLICATIONS



ABSOLUTE MAXIMUM RATINGS ($T_a = 25°C$)

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage at $R_{BE} = 1$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	°C
Storage Temperature	T_{stg}	−65~150	°C

ELECTRICAL CHARACTERISTICS ($T_a = 25°C$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = -10mA, I_B = 0$	−60			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			−0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			−0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -2V, I_C = -5mA$	25			
		$V_{CE} = -2V, I_C = -150mA$	40		160	
		$V_{CE} = -2V, I_C = -500mA$	25			
Collector Emitter Saturation Voltage	$V_{CE}(sat)$	$I_C = -500mA, I_B = -50mA$			−0.5	V
Base Emitter On Voltage	$V_{BE}(on)$	$V_{CE} = -2V, I_C = -500mA$			−1	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -5V, I_C = -10mA$, $f = 50MHz$		100		MHz

ISO 14001 CERTIFIED
AN ISO 9002 COMPANY