Transistors
BC338

USHA
(INDIA) LTD

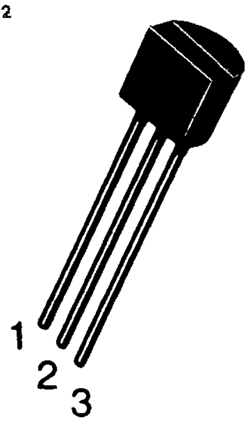
SWITCHING AND AMPLIFIER APPLICATIONS

- SUITABLE FOR AF-DRIVER STAGES AND LOW POWER OUTPUT STAGES
- Complement to BC327/BC328

ABSOLUTE MAXIMUM RATINGS ($T_a=25°C$)

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage	V_{CES}	30	V
Collector Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	800	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55~150	°C

TO-92



1. Collector 2. Base 3. Emitter

ELECTRICAL CHARACTERISTICS ($T_a=25°C$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C=10mA,\ I_B=0$	25			V
Collector Emitter Breakdown Voltage	BV_{CES}	$I_C=0.1mA,\ I_B=0$	30			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E=0.1mA,\ I_C=0$	5			V
Collector Cutoff Current	I_{CES}	$V_{CE}=25V,\ I_B=0$		2	100	nA
DC Current Gain	h_{FE}	$V_{CE}=1V,\ I_C=100mA$	100		630	
	$h_{FE}2$	$V_{CE}=1V,\ I_C=300mA$	60			
Collector Emitter Saturation Voltage	$V_{CE}(sat)$	$I_C=500mA,\ I_B=50mA$			0.7	V
Base Emitter On Voltage	$V_{BE}(on)$	$V_{CE}=1V,\ I_C=300mA$			1.2	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5V,\ I_C=10mA,$		100		MHz
Collector Base Capacitance	C_{CBO}	$V_{CB}=10V,\ f=1MHz$		12		pF

h_{FE} CLASSIFICATION

Classification	16	25	40
h_{FE}	100-250	160-400	250-630
$h_{FE}2$	60-	100-	170-

ISO 14001 CERTIFIED
AN ISO 9002 COMPANY