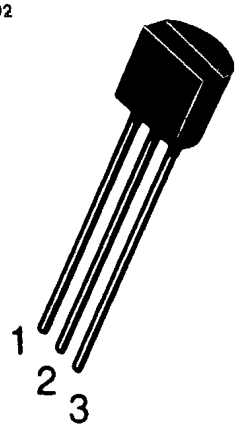
Transistors
MPSA92

USHA (INDIA) LTD

HIGH VOLTAGE TRANSISTOR

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	−300	V
Collector-Emitter Voltage	V_{CEO}	−300	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−500	mA
Collector Dissipation (T_a=25°C)	P_C	625	mW
Derate above 25°C		5	mW/°C
Collector Dissipation (T_c=25°C)	P_C	1.5	W
Derate above 25°C		12	mW/°C
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55~150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C = −100μA, I_E = 0	−300		V
*Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C = −1mA, I_B = 0	−300		V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E = −100μA, I_C = 0	−5		V
Collector Cut-off Current	I_{CBO}	V_{CB} = −200V, I_E = 0		−0.25	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = −3V, I_C = 0		−0.10	μA
*DC Current Gain	h_{FE}	V_{CE} = −10V, I_C = −1mA	25		
		V_{CE} = −10V, I_C = −10mA	40		
		V_{CE} = −10V, I_C = −30mA	25		
*Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C = −20mA, I_B = −2mA		−0.50	V
*Base-Emitter Saturation Voltage	V_{BE}(sat)	I_C = −20mA, I_B = −2mA		−0.90	V
Current Gain Bandwidth Product	f_T	V_{CE} = −20V, I_C = −10mA, f = 100MHz	50		MHz
Collector Base Capacitance	C_{CB}	V_{CB} = −20V, I_E = 0		6	pF

* Pulse Test: PW = 300μs, Duty Cycle = 2%

ISO 14001 CERTIFIED
AN ISO 9002 COMPANY