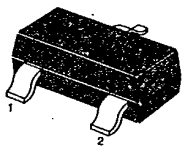
MMBTA93 PNP EPITAXIAL SILICON TRANSISTOR

T-29-19

HIGH VOLTAGE TRANSISTOR

SOT-23



1. Base 2. Emitter 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	−200	V
Collector-Emitter Voltage	V_{CEO}	−200	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−500	mA
Collector Dissipation	P_C	350	mW
Storage Temperature	Tstg	150	°C
Thermal Resistance Junction to Ambient	Rth(j-a)	357	°C/W

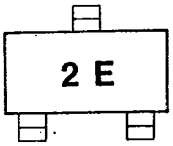
• Refer to MPSA92/93 for graphs

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	−200		V
*Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=−1mA, I_B=0	−200		V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=−100μA, I_C=0	−5		V
Collector Cutoff Current	I_{CBO}	V_{CB}=−160V, I_E=0		−0.25	μA
Emitter Cutoff Current	I_{EBO}	V_{BE}=−3V, I_C=0		−0.1	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		−0.5	V
*Base-Emitter Saturation Voltage	V_{BE} (sat)	I_C=−20mA, I_B=−2mA		−0.9	V
Current Gain-Bandwidth Product	f_T	V_{CE}=−20V, I_C=−10mA, f=100MHz	50		MHz
Collector-Base Capacitance	Ccb	V_{CB}=−20V, I_E=0, f=1MHz		8	pF

* Pulse Test: PW≤300μs, Duty Cycle≤2%

Marking



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