

SOT-23-3L Plastic-Encapsulate Transistors

MMBTA44 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.35 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.2 A

Collector-base voltage

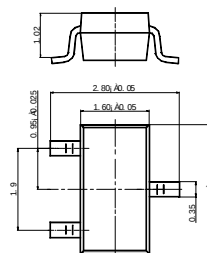
$V_{(BR)CBO}$: 400 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

SOT-23-3L

1. BASE
2. EMITTER
3. COLLECTOR



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, I_B = 0$	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 400V, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 400V$			5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			0.1	μA
DC current gain	$H_{FE(1)}$	$V_{CE} = 10V, I_C = 10mA$	80		300	
	$H_{FE(2)}$	$V_{CE} = 10V, I_C = 1mA$	70			
	$H_{FE(3)}$	$V_{CE} = 10V, I_C = 100mA$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 1mA$			0.2	V
	$V_{CE(sat)}$	$I_C = 50mA, I_B = 5mA$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 10mA, I_B = 1mA$			0.75	V
Transition frequency	f_T	$V_{CE} = 20V, I_C = 10mA$ $f = 30MHz$	50			MHz