

SOT-23-3L Plastic-Encapsulate Transistors

MMBTA44 TRANSISTOR (NPN)

FEATURES

Power dissipation

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

Collector current

$I_{CM} : 0.2\text{ A}$

Collector-base voltage

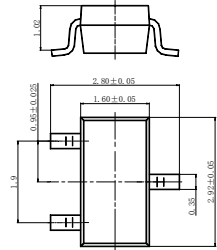
$V_{(BR)CBO} : 400\text{ V}$

Operating and storage junction temperature range

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

SOT-23-3L

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



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

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

MARKING:3D