



**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

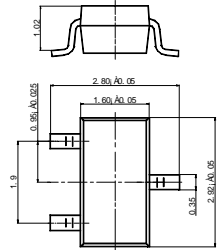
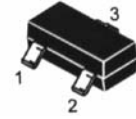
$V_{(BR)CBO}$ : 400 V

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	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE}=400V$			5	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			0.1	$\mu A$
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

<b>MARKING</b>	<b>3D</b>
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