



SOT-23 Plastic-Encapsulate Transistors

MMBTH10LT1 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.225 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.05 A

Collector-base voltage

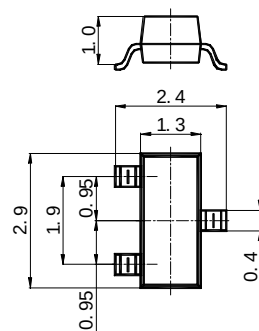
$V_{(BR)CBO}$: 30 V

Operating and storage junction temperature range

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

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR



Unit: mm

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{ mA}, I_B=0$	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	3		V
Collector cut-off current	I_{CBO}	$V_{CB}=25V, I_E=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=2V, I_C=0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=10V, I_C=4\text{ mA}$	60		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=4\text{ mA}, I_B=0.4\text{ mA}$		0.5	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=10V, I_C=4\text{ mA}$		0.95	V
Transition frequency	f_T	$V_{CE}=10V, I_C=4\text{ mA}$ $f=100\text{ MHz}$	650		MHz

DEVICE MARKING

MMBTH10LT1=3EM