



SOT-23 Plastic-Encapsulate Transistors

MMBTA05LT1 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.3 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.5 A

Collector-base voltage

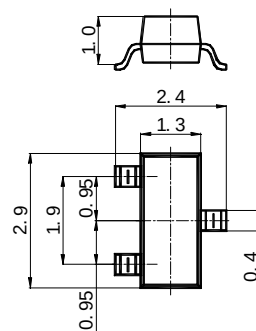
$V_{(BR)CBO}$: 60 V

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	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	4			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=60V, I_B=0$			0.1	μA
Collector cut-off current	I_{EBO}	$V_{EB}=3V, I_C=0$			0.1	μA
DC current gain	h_{FE1}	$V_{CE}=1V, I_C=10mA$	100			
	h_{FE2}	$V_{CE}=1V, I_C=100mA$	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$			0.25	V
Base-emitter voltage	V_{BE}	$V_{CE}=1V, I_C=100mA$			1.2	V
Transition frequency	f_T	$V_{CE}=2V, I_C=10mA$ $f=100MHz$	100			MHz

Marking	1H
---------	----