SHENZHEN LONG JING MICRO-ELECTRONICS CO., LTD.

SOT-23 Plastic-Encapsulate Transistors

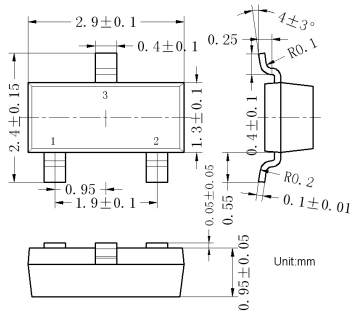
MMBT4403

PNP Transistor

Features

■ Switching transistor

Marking: 2T



1. Base
2. Emitter
3. Collector

Maximum Ratings (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CEO}	Collector emitter voltage	-40	V
V_{CBO}	Collector base voltage	-40	V
V_{EBO}	Emitter base voltage	-5	V
I_C	Collector current(DC)	-0.6	A
P_C	Collector power dissipation	0.3	W
T_j	Junction temperature	150	°C
T_{stg}	Storage temperature	- 55 to +150	°C
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	°C/W

Electrical Characteristics (T_a=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Max	Unit
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C = -1mA, I_B = 0	-40		V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C= -100μA , I_E=0	-40		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E = -100μA, I_C = 0	-5		V
I_{CBO}	Collector cut off current	V_{CB} = -35V, I_E = 0		-100	nA
I_{CEX}	Collector cut off current	V_{CE} = -35V, V_{BE} = 0.4V		-100	nA
I_{EBO}	Emitter cut off current	V_{EB}= -4 V, I_C = 0		-100	nA
h_{FE}	Dc current gain	V_{CE} = -5V, I_C = -1mA	100		
		V_{CE} = -2V, I_C = -150mA	200	300	
		V_{CE} = -2V, I_C = -500mA	20		
		V_{CE} = -1V, I_C = -0.1mA	30		
		V_{CE} = -1V, I_C = -1mA	60		
		V_{CE} = -1V, I_C = -10mA	100		
$V_{CE\ (sat)}$	Collector emitter saturation voltage	I_C = -150mA, I_B = -15mA		-0.4	V
		I_C = -500mA, I_B = -50mA		-0.75	V
$V_{BE\ (sat)}$	Base-emitter saturation voltage	I_C = -150mA, I_B = -15mA		-0.95	V
		I_C = -500mA, I_B = -50mA		-1.3	V
f_T	Transition frequency	V_{CE} = -10V, I_C = -20mA f = 100MHz	200		MHz
t_d	Delay time	V_{CC} = -30V, $V_{BE(off)}$ = -0.5V I_C = -150mA , I_{B1} = -15mA		15	ns
t_r	Rise time			20	ns
t_s	Storage time	V_{CC} = -30V, I_C = -150mA I_{B1} = I_{B2} = -15mA		225	ns
t_f	Fall time			60	ns

Typical Characteristics