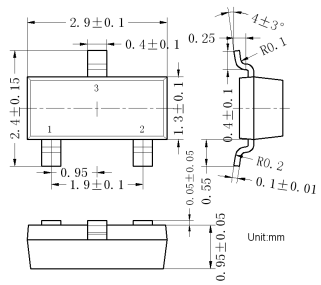
SHENZHEN LONG JING MICRO-ELECTRONICS CO., LTD.

SOT-23 Plastic-Encapsulate Transistors

MMBT3906 PNP Transistors



1. Base
2. Emitter
3. Collector

Features

- As complementary type, the NPN transistor MMBT3904 is recommended
- Epitaxial planar die construction

Marking: 2A

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	-40	V
V_{CEO}	Collector Emitter Voltage	-40	V
V_{EBO}	Emitter Base Voltage	-5	V
I_C	Collector Current	-200	mA
P_C	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal resistance junction to ambient	625	°C/W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	- 55 to +150	°C

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=-10μA,I_E=0	-40			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=-1mA,I_B=0	-40			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=-10μA,I_C=0	-5			V
I_{CBO}	Collector cut-off current	V_{CB}=-40V,I_E=0			-100	nA
I_{CEX}	Collector cut-off current	V_{CE}=-30V,$V_{BE(off)}$=3V			-50	nA
I_{EBO}	Emitter cut-off current	V_{EB}=-5V,I_C=0			-100	nA
$h_{FE(1)}$	DC current gain	V_{CE}=-1V, I_C=-10mA	100		300	
$h_{FE(2)}$		V_{CE}=-1V, I_C=-50mA	60			
$h_{FE(3)}$		V_{CE}=-2V, I_C=-100mA	30			
$V_{CE(sat)}$	Collector emitter saturation voltage	I_C=-50mA,I_B=-5mA			-0.3	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=-50mA,I_B=-5mA			-0.95	V
f_T	Transition frequency	V_{CE}=-20V,I_C=-10mA,f=100MHz	300			MHz
td	Delay Time	V_{CC}=-3V,V_{BE}=-0.5V			35	nS
tr	Rise Time	I_C=-10mA, I_{B1}=I_{B2}=-1mA			35	nS
ts	Storage Time	V_{CC}=-3V,I_C=-10mA			225	nS
tf	Fall Time	I_{B1}=I_{B2}=-1mA			75	nS

Typical Characteristics