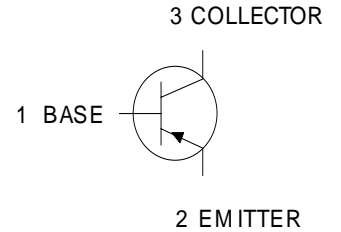




MMBT3906 TRANSISTOR (PNP)

FEATURES

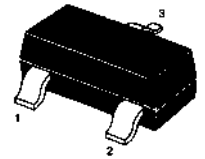
- Complementary Type The NPN Transistor
- MMBT3904 is Recommended
- Epitaxial Planar Die Construction



MARKING: 2A

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

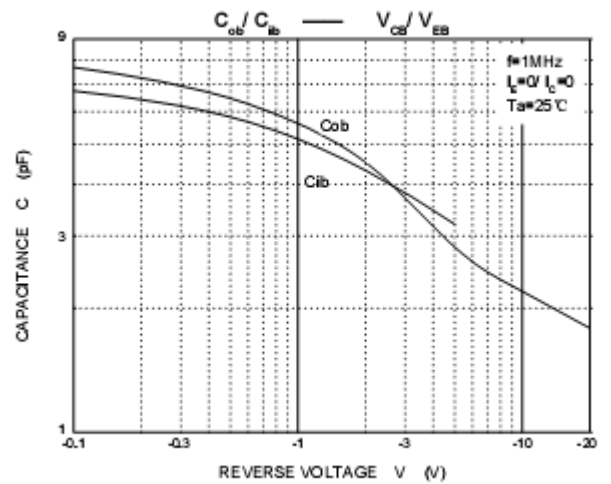
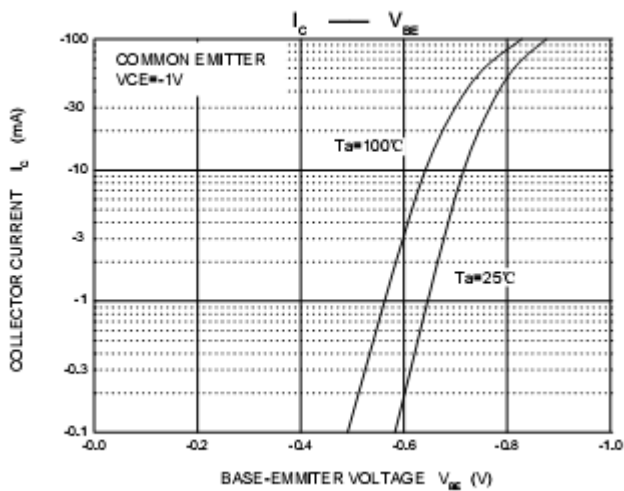
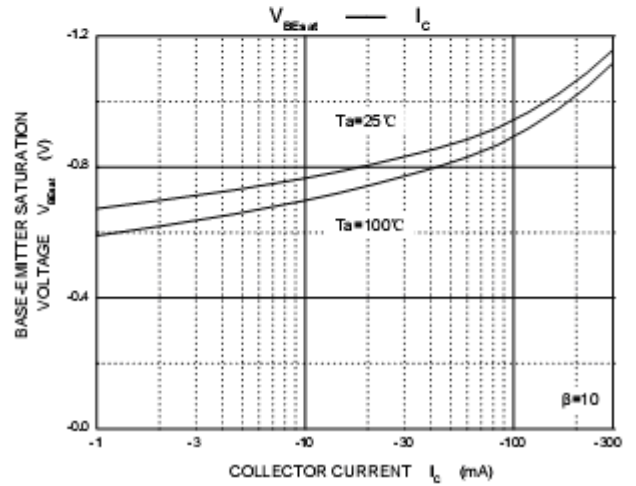
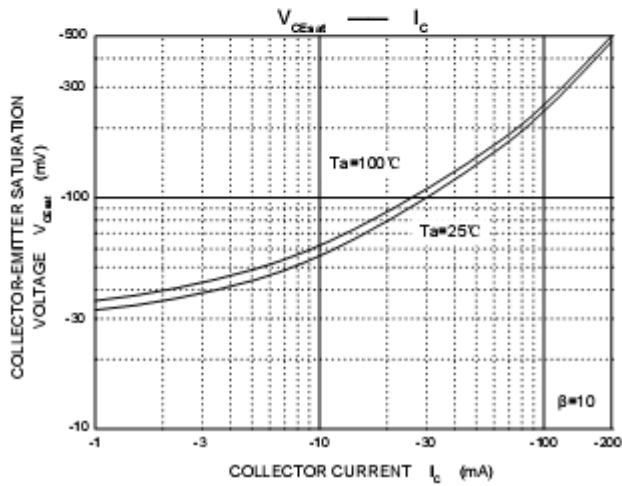
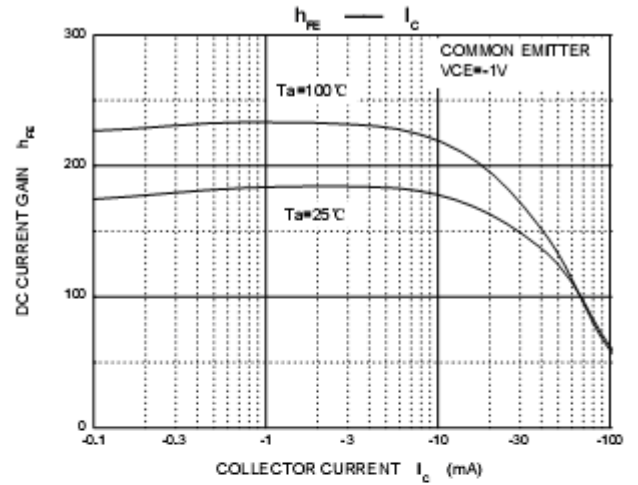
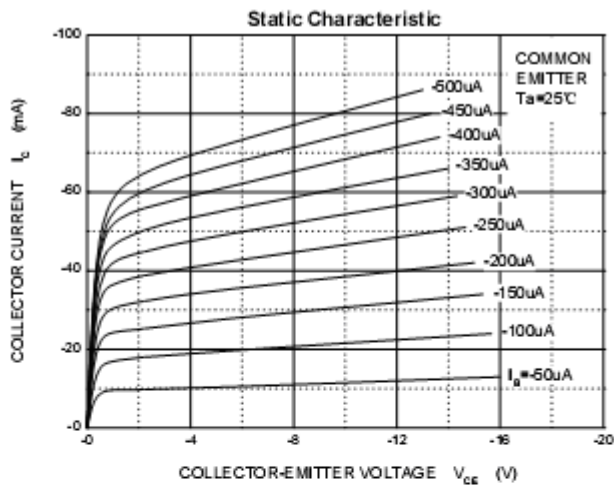
Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-40	V
V _{CEO}	Collector-Emitter Voltage	-40	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-200	mA
P _C	Total Device Dissipation	200	mW
R _{θJA}	Thermal Resistance Junction to Ambient	625	°C/W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55 ~ +150	°C



SOT23-3L

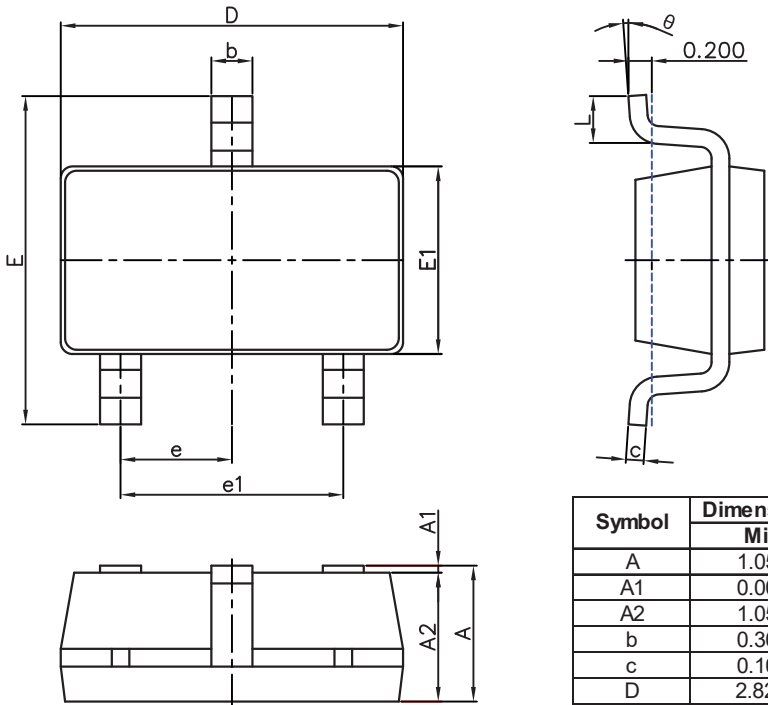
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-40		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-40		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-5		V
Collector cut-off current	I _{CBO}	V _{CB} =-40V, I _E =0		-0.1	μA
Collector cut-off current	I _{CEX}	V _{CE} =-30V, V _{BE(off)} =-3V		-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0		-0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =-1V, I _C =-10mA	100	300	
	h _{FE(2)}	V _{CE} =-1V, I _C =-50mA	60		
	h _{FE(3)}	V _{CE} =-1V, I _C =-100mA	30		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-50mA, I _B =-5mA		-0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-50mA, I _B =-5mA		-0.95	V
Transition frequency	f _T	V _{CE} =-20V, I _C =-10mA, f=100MHz	300		MHz
Delay Time	t _d	V _{CC} =-3V, V _{BE} =-0.5V		35	nS
Rise Time	t _r	I _C =-10mA, I _{B1} =-I _{B2} =-1mA		35	nS
Storage Time	t _s	V _{CC} =-3V, I _C =-10mA,		225	nS
Fall Time	t _f	I _{B1} =-I _{B2} =-1mA		75	nS



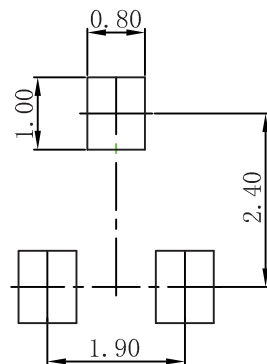


SOT23-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
K	0°	8°	0°	8°

SOT23-3L Suggested Pad Lay out



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.