MMBT3906

PNP Transistor

印章/Marking: 2A

用途/Applications:

用于普通放大与开关，与 MMBT3904 互补。

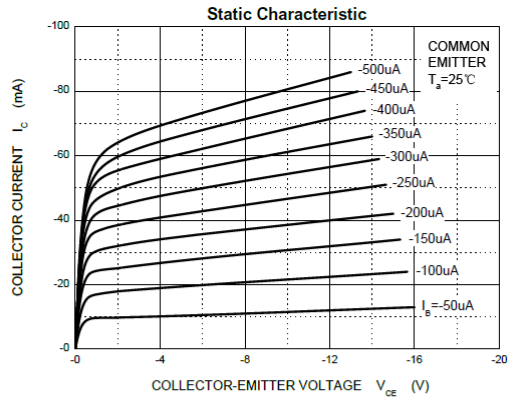
极限参数/Absolute maximum ratings (Ta=25℃)

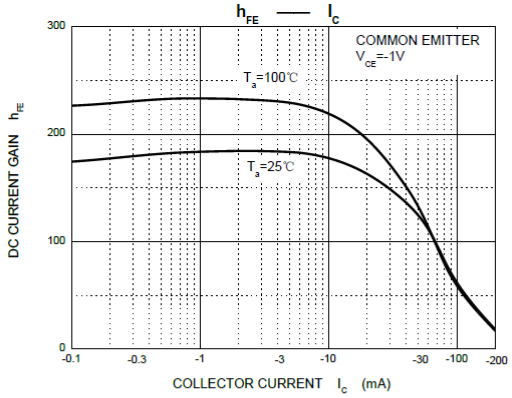
参数/Parameter	符号/ Symbol	数值/Value	单位/Unit
集电极-基极电压/Collector-Base Voltage	V_{CBO}	-40	V
集电极-发射极电压/Collector-Emitter Voltage	V_{CEO}	-40	V
发射极-基极电压/Emitter-Base Voltage	V_{EBO}	-5	V
集电极连续电流/Collector Current Continuous	I_C	-0.2	A
集电极耗散功率/Collector Power Dissipation	P_C	0.2	W
结温/Junction Temperature	Tj	150	℃
储存温度/Storage Temperature	Tstg	-55～150	℃

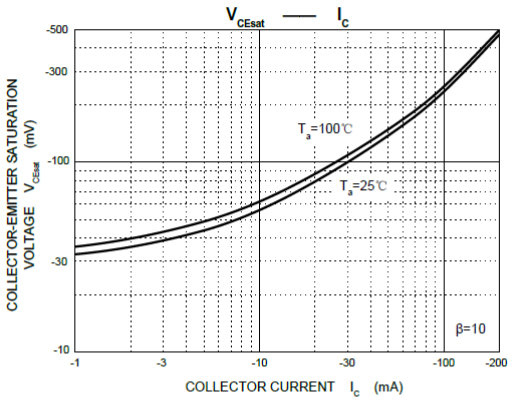
电性能参数/Electrical characteristics (Ta=25℃)

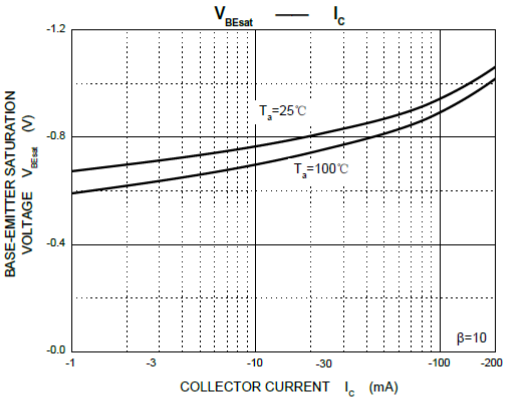
参数	符号	测试条件	最小值	最大值	单位
集电极-基极击穿电压	$V_{BR(CBO)}$	I_C=-10μA, I_E=0	-40		V
集电极-发射极击穿电压	$V_{BR(CEO)}$	I_C=-1mA, I_B=0	-40		V
发射极-基极击穿电压	$V_{BR(EBO)}$	I_E=-10μA, I_C=0	-5		V
集电极截止电流	I_{CBO}	V_{CB}=-40V, I_E=0		-0.1	μA
集电极截止电流	I_{CBX}	V_{CE}=-30V, $V_{BE(off)}$=-3V		-50	nA
发射极截止电流	I_{EBO}	V_{EB}=-5V, I_C=0		-0.1	μA
直流电流增益	$h_{FE(1)}$	V_{CE}=-1V, I_C=-10mA	100	300	
直流电流增益	$h_{FE(2)}$	V_{CE}=-1V, I_C=-50mA	60		
直流电流增益	$h_{FE(3)}$	V_{CE}=-1V, I_C=-100mA	30		
集电极-发射极饱和压降	$V_{CE(sat)}$	I_C=-50mA, I_B=-5mA		-0.4	V
基极-发射极饱和压降	$V_{BE(sat)}$	I_C=-50mA, I_B=-5mA		-0.95	V
特征频率	f_T	V_{CE}=-20V, I_C=-10mA, f=100 MHz	300		MHz
延迟时间	t_d	V_{CC}=-3V, V_{BE}=-0.5V,		35	nS
上升时间	t_r	I_C=-10mA, I_{B1}=-I_{B2}=-1.0mA		35	nS
存储时间	t_s	V_{CC}=-3V, I_C=-10mA,		225	nS
下降时间	t_f	I_{B1}=-I_{B2}=-1.0mA		75	nS

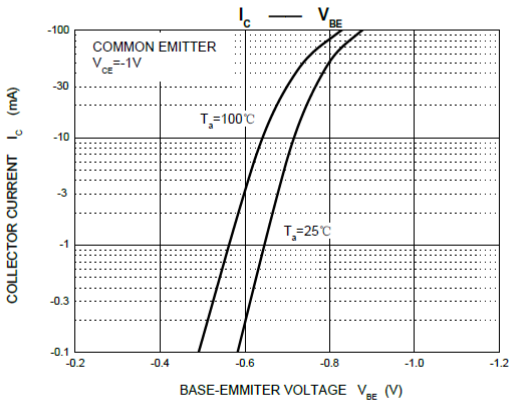
Typical Characteristics

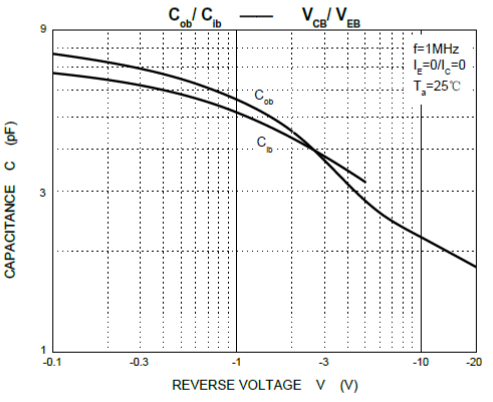


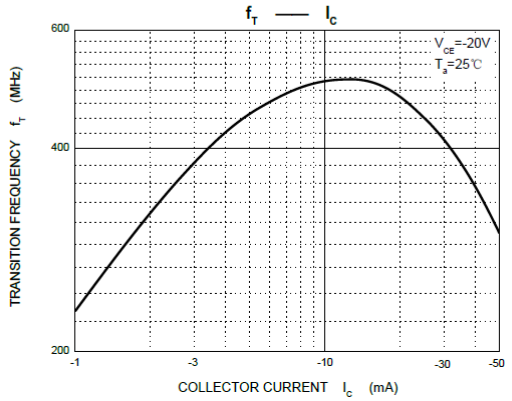


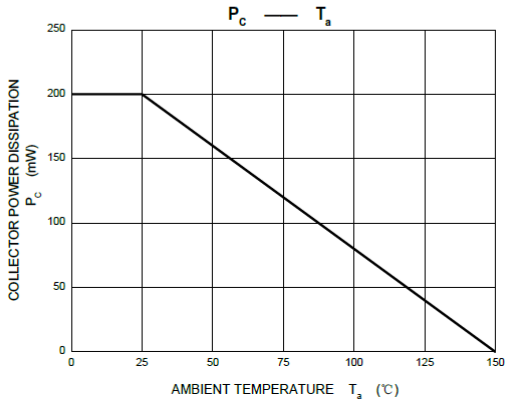




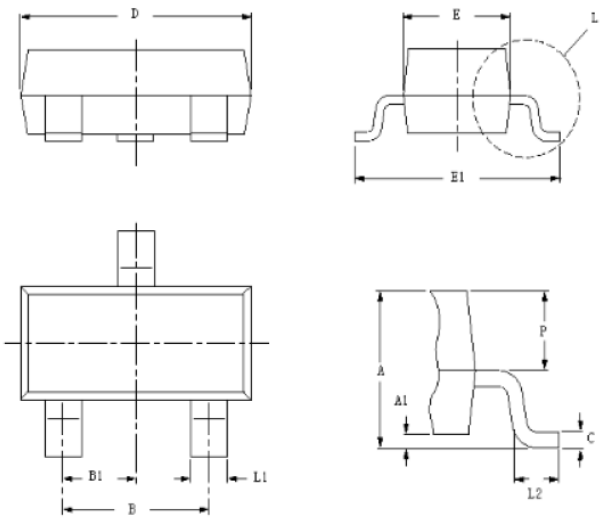








SOT-23 Package Outline Dimensions



Symbol	Dim in mm	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
L1	0.350	0.500
C	0.090	0.150
D	2.800	3.000
E	1.250	1.350
E1	2.250	2.550
B	1.800	2.000
B1	0.950 TYP	
L2	0.200	0.450
P	0.550	0.600

Mold Surface roughness: < 4um

SOT-23 Tape and Reel

PKG TYPE	W	P	E	F	D	D1	Po	Po10	P2	A0	B0	K0	T
SOT-23	8.00	4.00	1.75	3.50	1.50	1.00	4.00	40.00	2.00	3.15	2.77	1.22	0.20
Tolerance	+0.3/-0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.2	±0.05	±0.1	±0.1	±0.1	±0.02