MMBT3906 (Halogen Free)

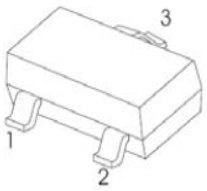
TRANSISTOR (PNP)

Features

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

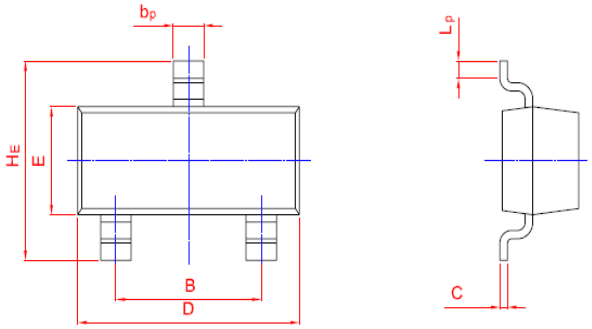
Marking：2A

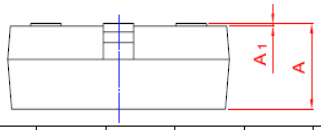
Pin figure



1. BASE
2. EMITTER
3. COLLECTOR

SOT-23





UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

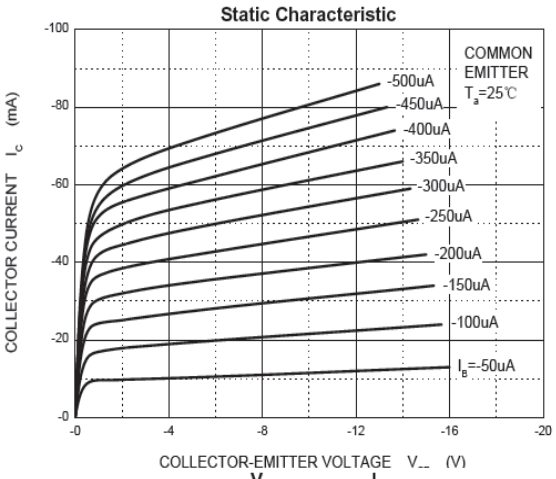
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-200	mA
Total Device Dissipation	P_C	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 to +150	℃

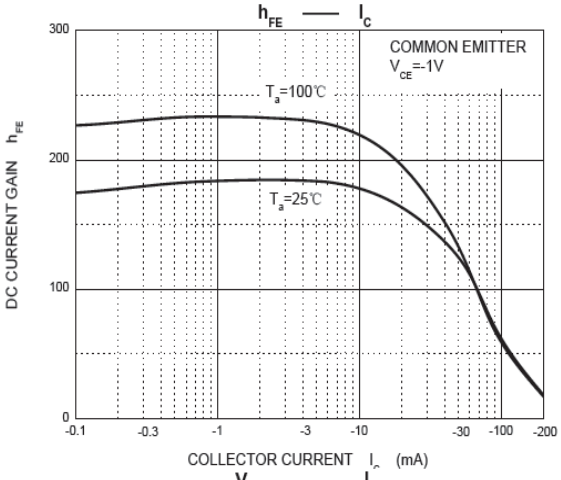
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

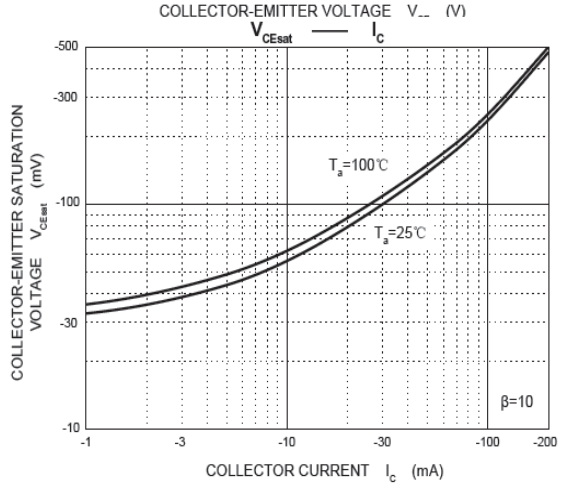
Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	V_{CBO}	I_C=-10μA,I_E=0	-40	-	V
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=-1mA,I_B=0	-40	-	V
Emitter-Base Breakdown Voltage	V_{EBO}	I_E=-10μA,I_C=0	-5	-	V
Collector Cut-off Current	I_{CBO}	V_{CB}=-40V,I_E=0	-	-0.1	μA
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	fT	V_{CE}=-20V, I_C= -10mA,f=100MHz	300		MHz
Delay Time	td	V_{CC}=-3V,V_{BE}=-0.5V		35	nS
Rise Time	tr	I_C=-10mA,I_{B1}=-I_{B2}=-1mA		35	nS
Storage Time	ts	V_{CC}=-3V,I_C=-10mA,		225	nS
Fall Time	tf	I_{B1}=-I_{B2}=-1mA		75	nS

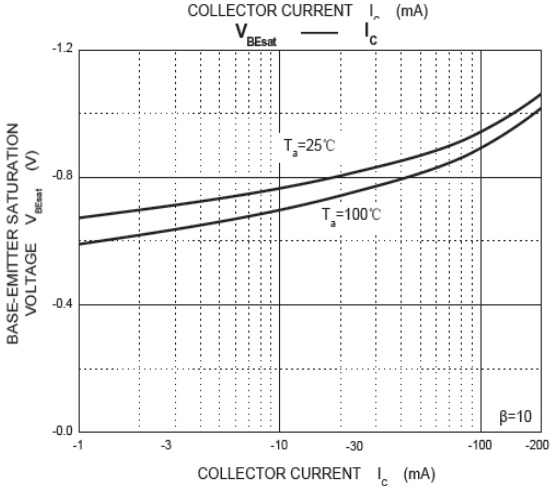
RATING AND CHARACTERTIC CURVES

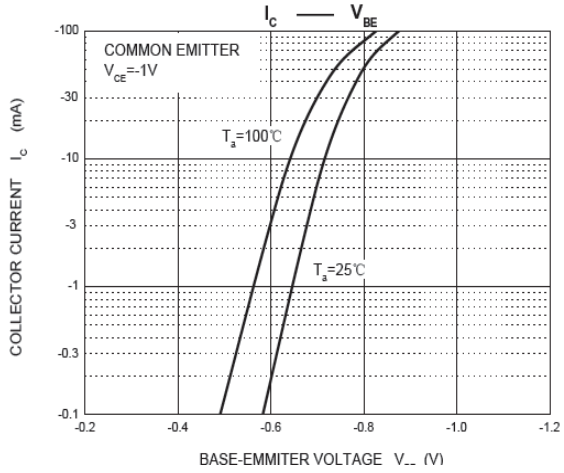
MMBT3906 (Halogen Free)

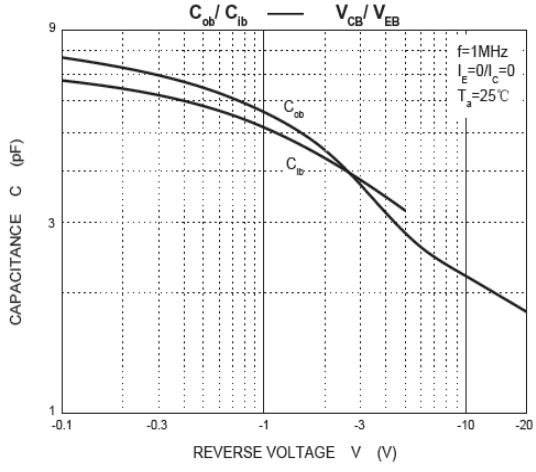


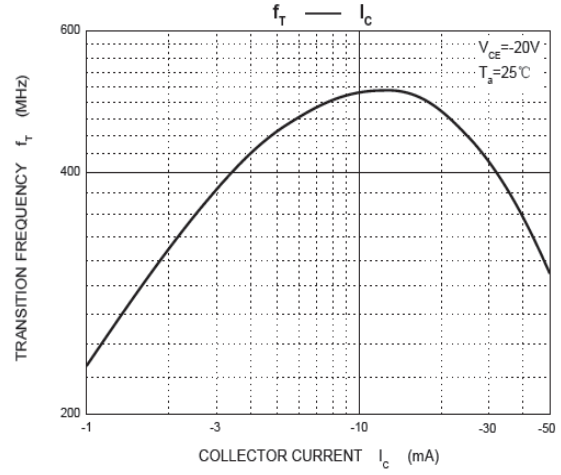


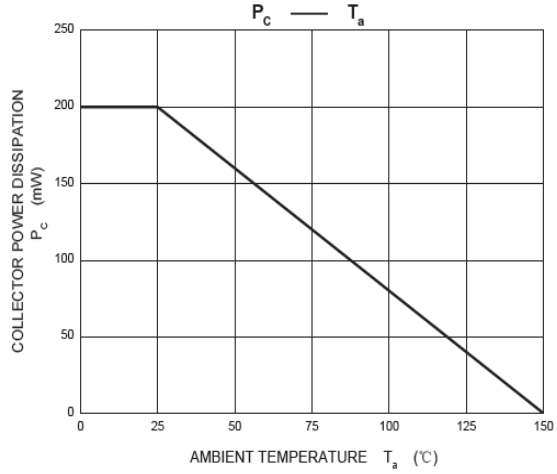












MMBT3906-7H-99-00-BC1201

The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

Rev. 1,17-Nov-2017

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Rev. 2, 16-Mar-2017