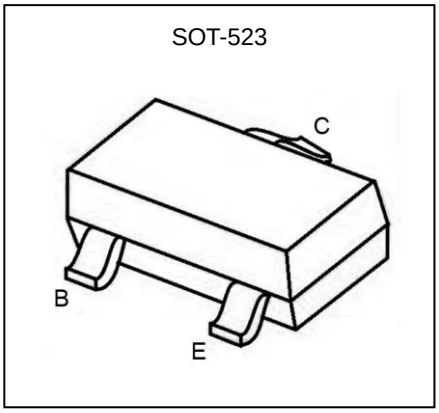
MMBT3906T

MMBT3906T Transistor(PNP)



Feature

- Epitaxial Planar Die Construction
- Complementary NPN Type Available(MMBT3904)
- Ideal for Medium Power Amplification and Switching

Marking: 3N

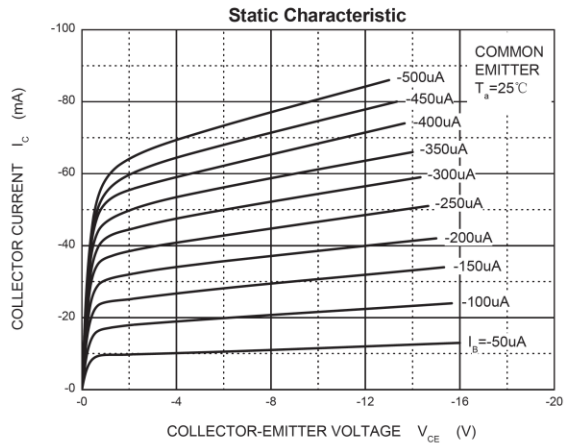
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

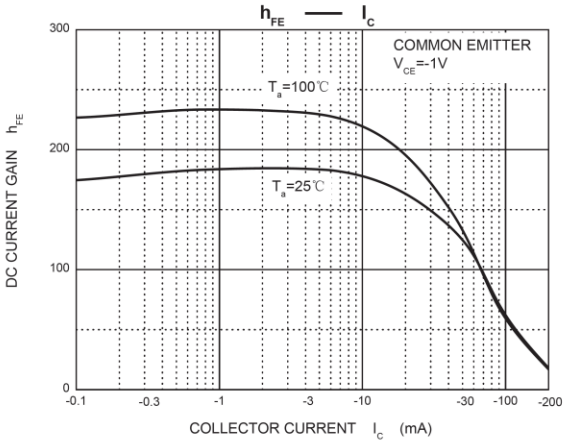
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-0.1	A
Power Dissipation	P_d	0.15	W
Junction Temperature	T_J	125	℃
Storage Temperature	T_{STG}	-45~ +150	℃

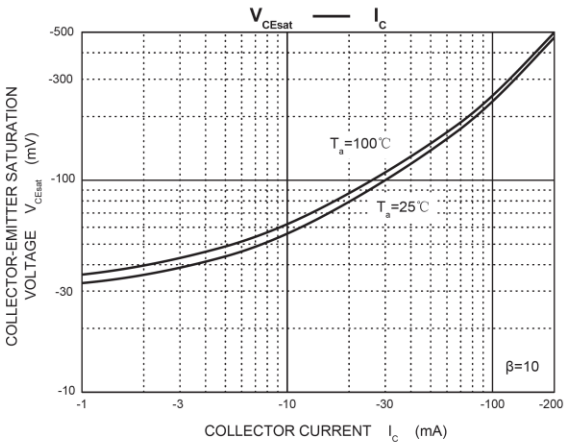
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise noted)

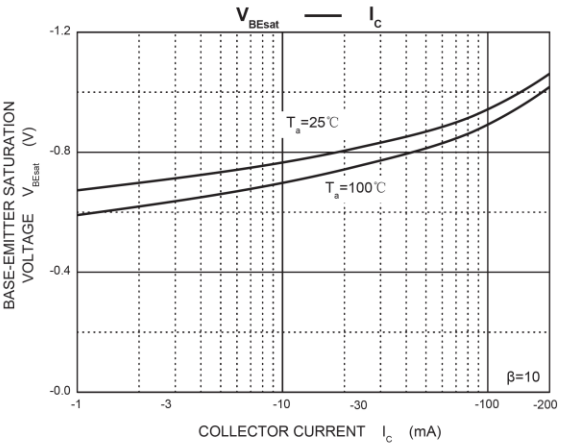
Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA ,I_E=0	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA , I_B=0	-40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA,I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}=-40V, I_E=0		-100	nA
Emitter cut-off current	I_{EBO}	V_{CE}=-5V, I_C=0		-100	nA
Collector cut-off current	I_{CEX}	V_{CE}=-30V, $V_{EB(OFF)}$=-3V		-200	nA
DC current gain	h_{FE}	V_{CE}=-1V, I_C=-0.1mA	60		
		V_{CE}=-1V, I_C=-1mA	80		
		V_{CE}=-1V, I_C=-10mA	100	300	
		V_{CE}=-1V, I_C=-50mA	60		
		V_{CE}=-1V, I_C=-100mA	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-10mA, I_B= -1mA		-0.25	V
		I_C=-50mA, I_B= -5mA		-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-10mA, I_B= -1mA	-0.65	-0.85	V
		I_C=-50mA, I_B= -5mA		-0.95	V
Transition frequency	f_T	V_{CE}= -20V, I_C=-10mA,f=100MHz	250		MHZ

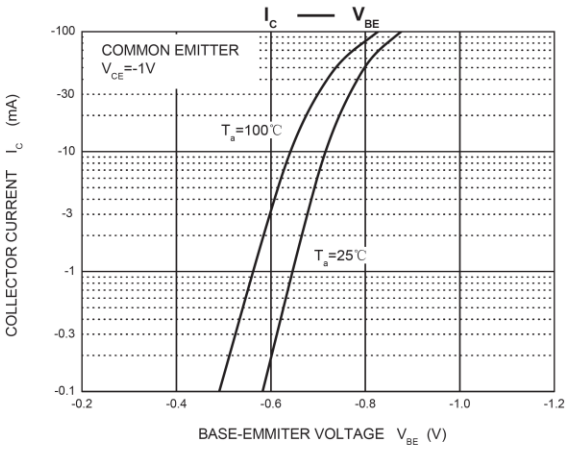
Typical Characteristics

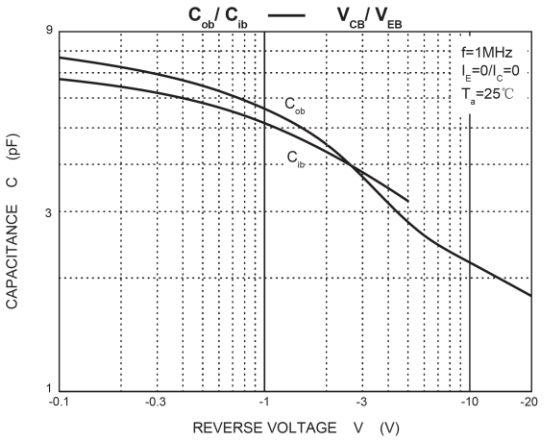


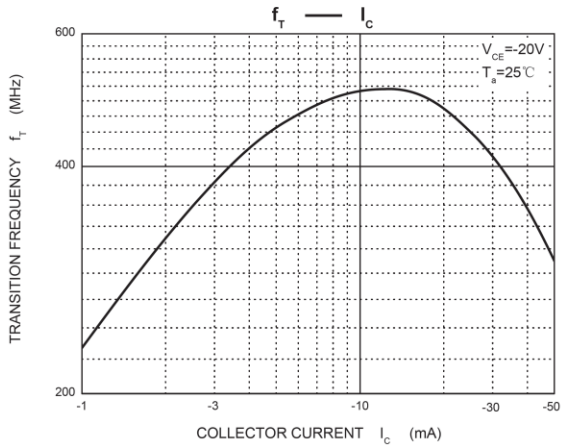


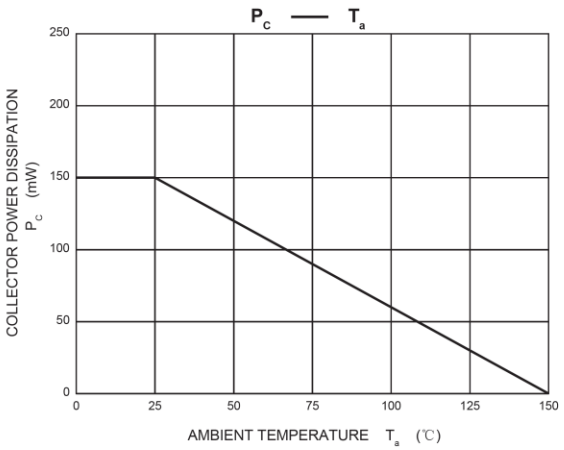




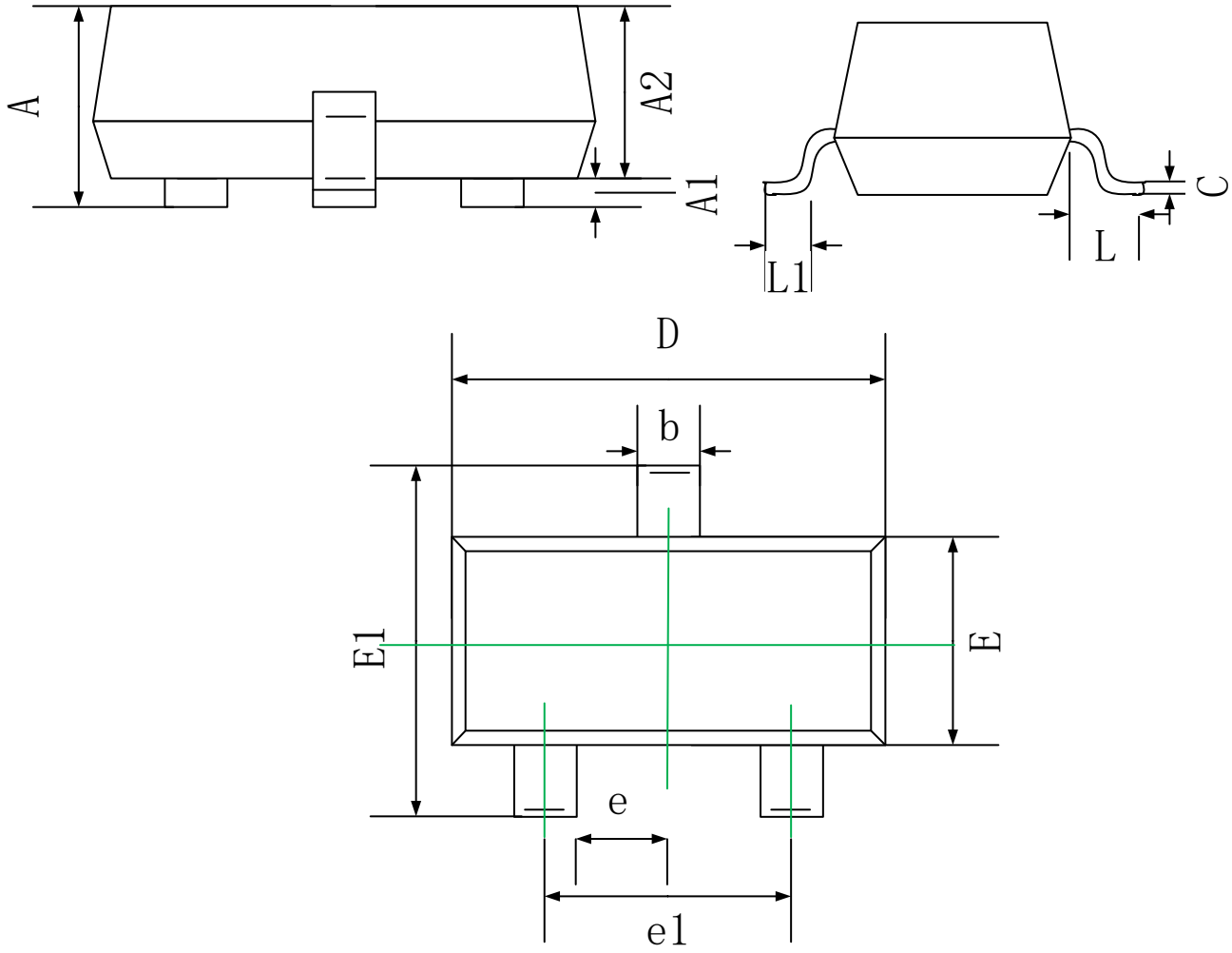








SOT-523 Package Information



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.700	0.900
A1	0.000	0.100
A2	0.700	0.800
b	0.250	0.350
c	0.100	0.200
D	1.500	1.700
E	0.700	0.900
E1	1.450	1.750
e	0.500 TYP	
e1	0.900	1.100
L	0.550 REF	
θ	0°	8°