



MMBT3906M Transistor(PNP)

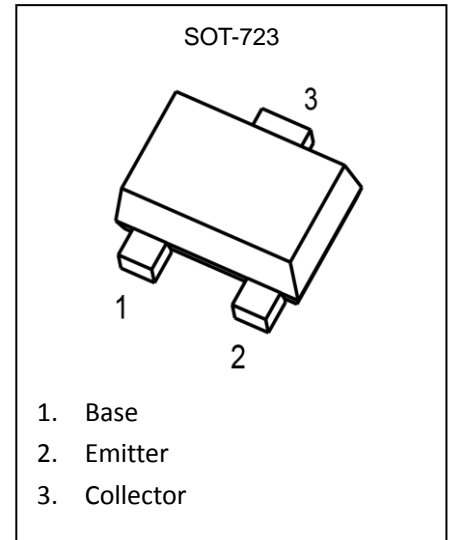
Feature

- Complementary to MMBT3904M
- Small Package

Marking: 3N

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

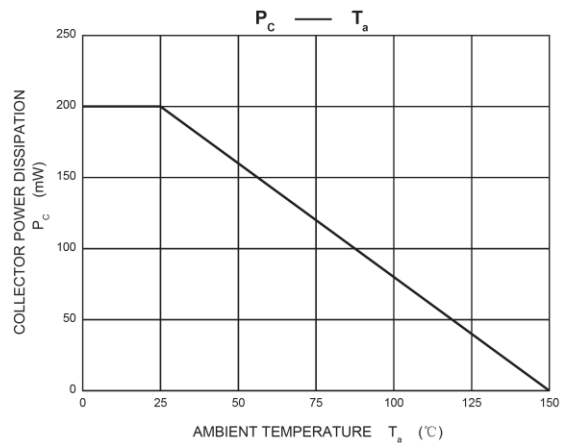
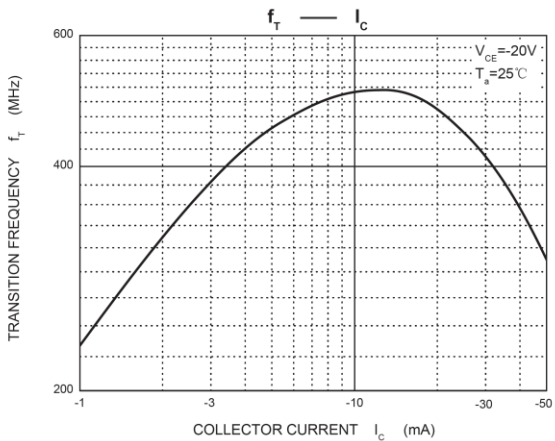
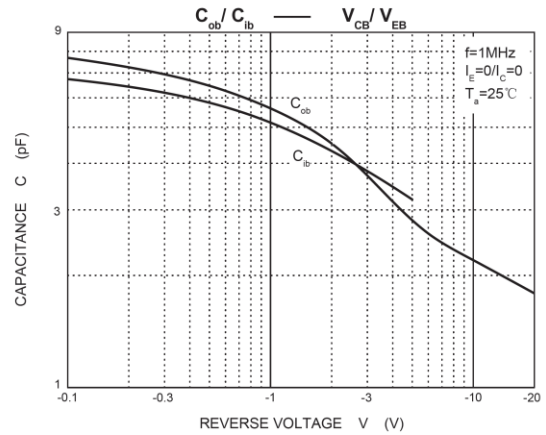
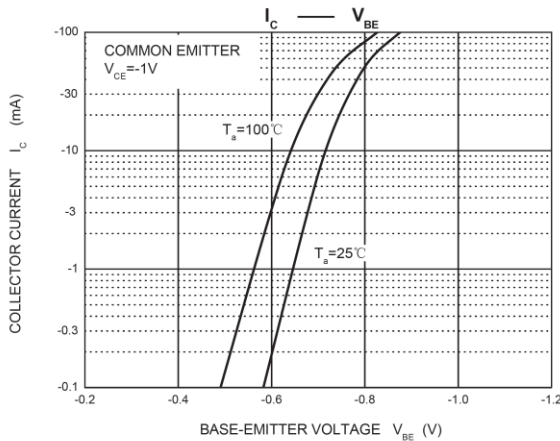
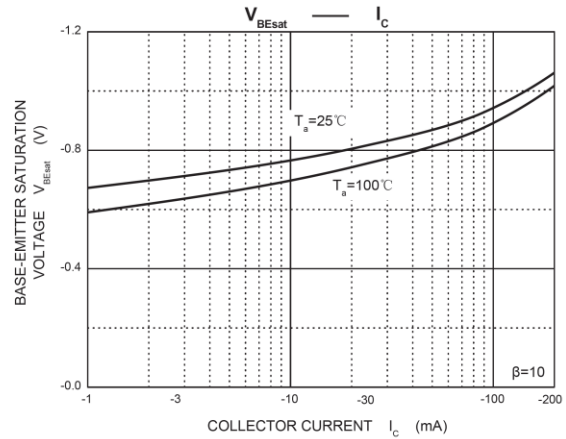
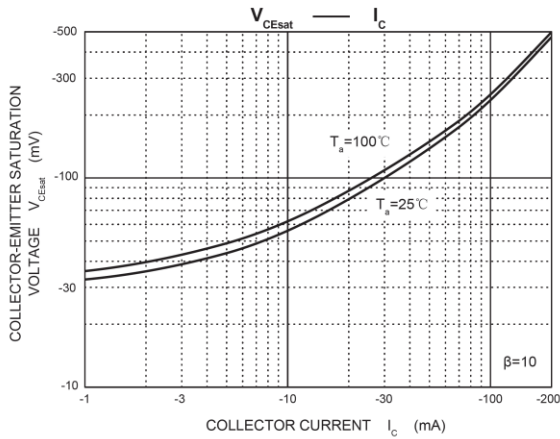
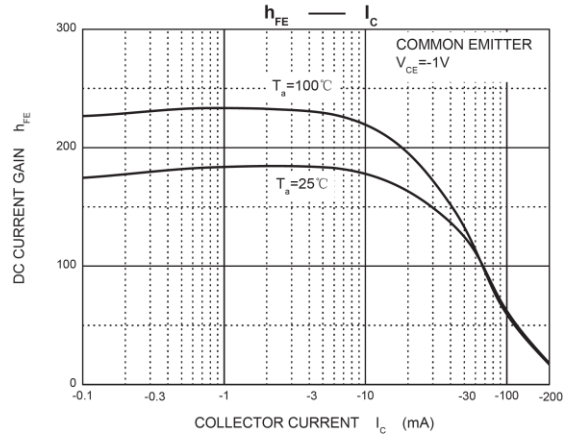
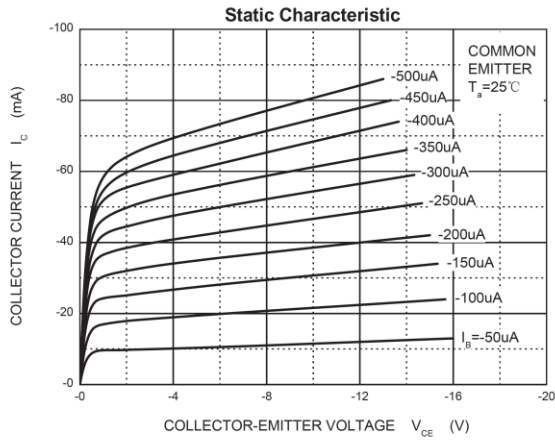
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-40	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current -Continuous	I _c	-0.2	A
Power Dissipation	P _d	0.1	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~ +150	°C



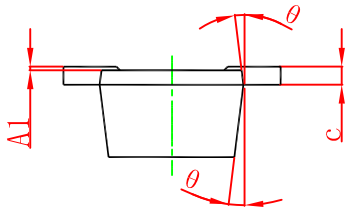
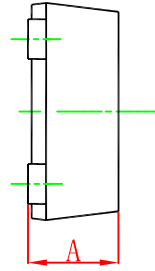
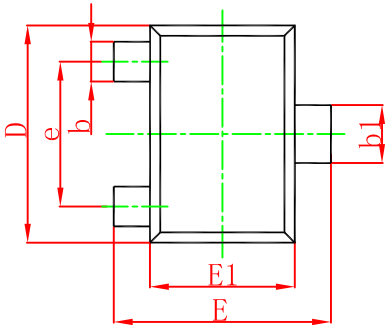
ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

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
Collector cut-off current	I _{CEX}	V _{CE} =-30V, V _{BE(OFF)} =-3V		-50	nA
Base cut-off current	I _{EBO}	V _{EB} =-5V, I _c =0		-100	nA
DC current gain	h _{FE1}	V _{CE} =-1V, I _c =-10mA	100	300	
	h _{FE2}	V _{CE} =-1V, I _c =-50mA	60		
	h _{FE3}	V _{CE} =-2V, 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} = -3.0V, I _c = -10mA,		35	ns
Rise Time	t _r	V _{BE(off)} = 0.5V, I _{B1} = -1.0mA		35	ns
Storage Time	t _s	V _{CC} = -3.0V, I _c = -10mA,		225	ns
Fall Time	t _f	I _{B1} = I _{B2} = -1.0mA		75	ns

Typical Characteristics

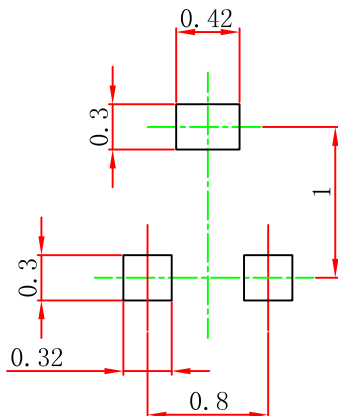


SOT-723 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.430	0.500	0.017	0.020
A1	0.000	0.050	0.000	0.002
b	0.170	0.270	0.007	0.011
b1	0.270	0.370	0.011	0.015
c	0.080	0.150	0.003	0.006
D	1.150	1.250	0.045	0.049
E	1.150	1.250	0.045	0.049
E1	0.750	0.850	0.030	0.033
e	0.800TYP.		0.031TYP.	
θ	7° REF.		7° REF.	

SOT-723 Suggested Information



Note:

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