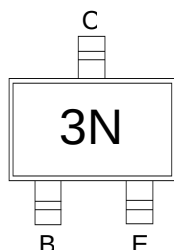
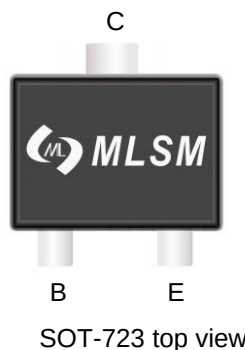


Features

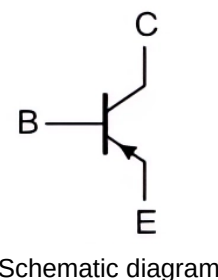
- Complementary to MMBT3904M



Marking and pin assignment



SOT-723 top view



Schematic diagram



Halogen-Free

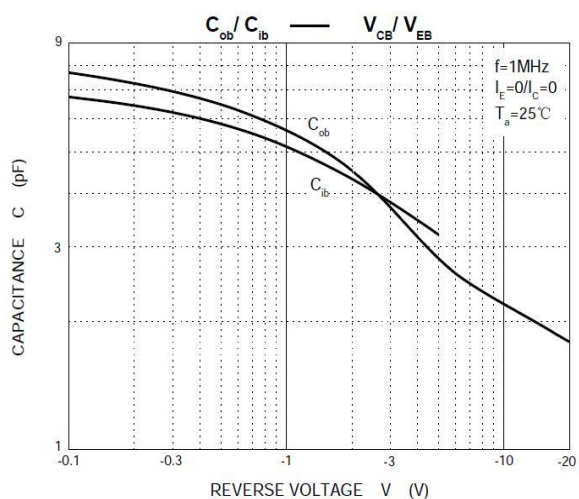
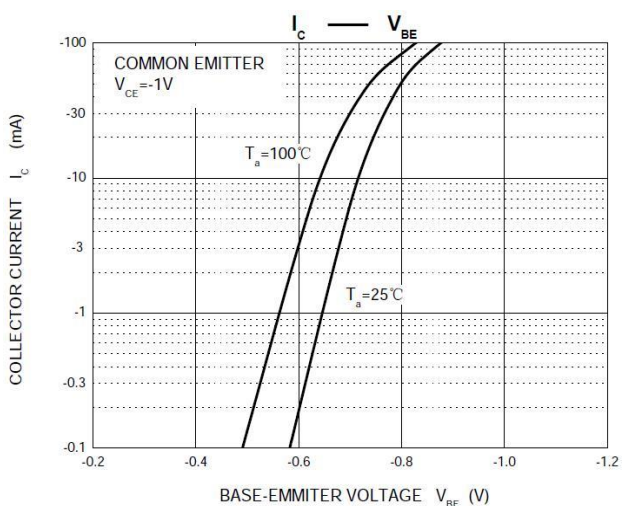
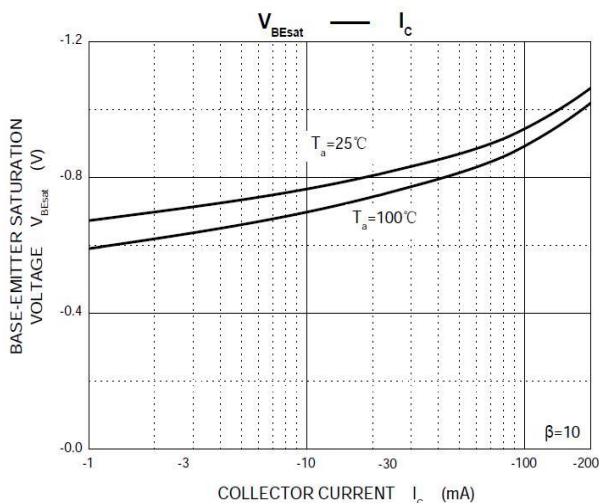
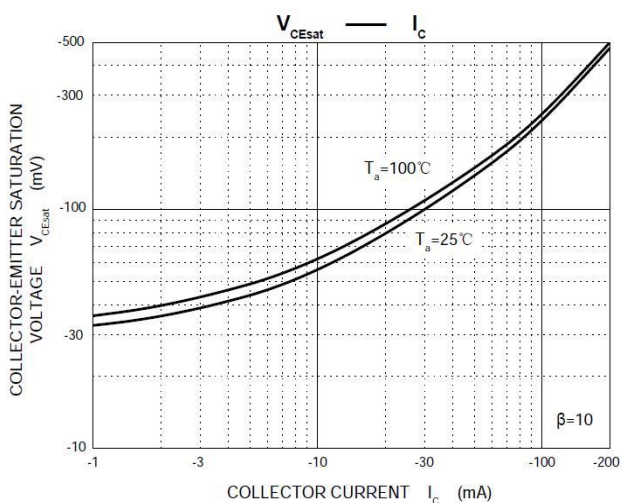
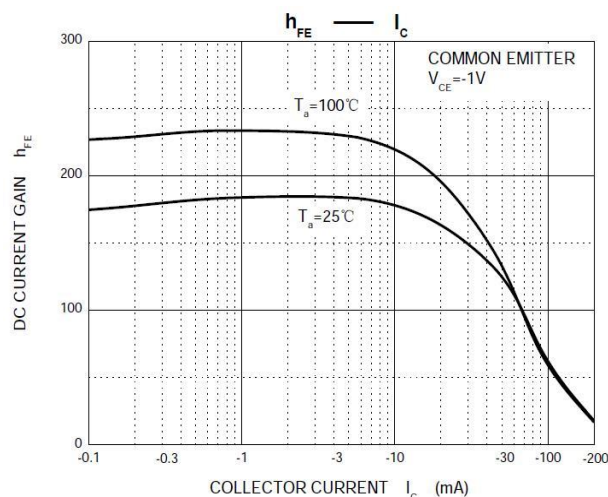
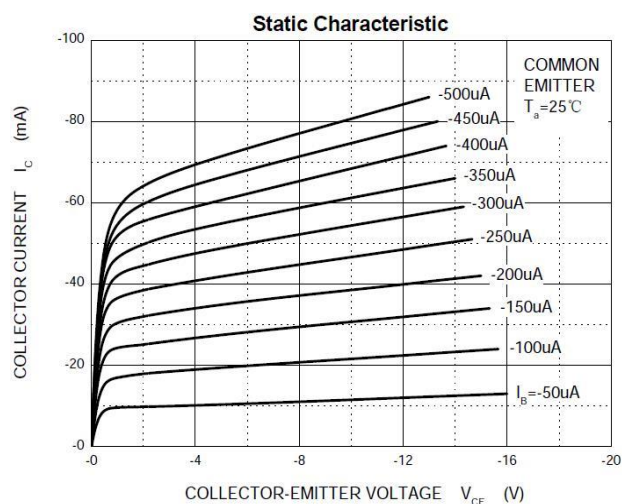
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

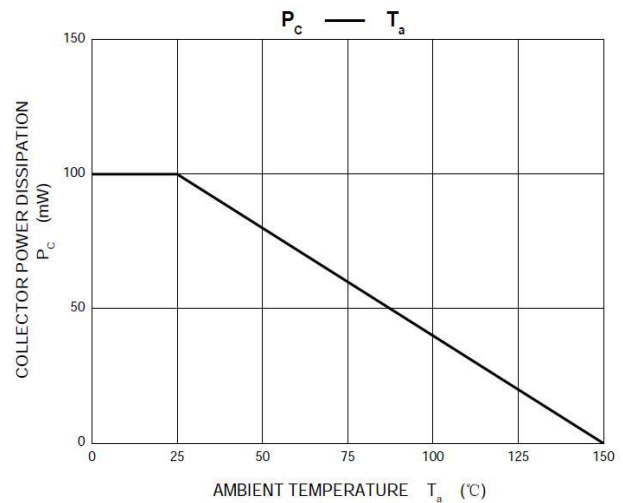
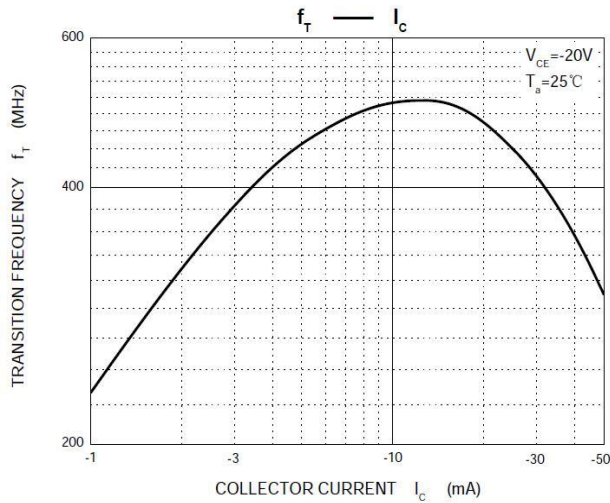
Symbol	Parameter	Limit	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.2	A
P_C	Power Dissipation	100	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	1250	°C/W
T_J, T_{STG}	Operation Junction and Storage Temperature Range	-55~+150	°C

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

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = -10\mu A, I_E = 0$	-40	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = -1mA, I_B = 0$	-40	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -10\mu A, I_C = 0$	-5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB} = -40V, I_E = 0$	--	--	-100	nA
I_{CEX}	Collector cut-off current	$V_{CE} = -30V, V_{BE(off)} = -3V$	--	--	-50	nA
I_{EBO}	Emitter cut-off current	$V_{EB} = -5V, I_C = 0$	--	--	-100	nA
h_{FE1}	DC current gain	$V_{CE} = -1V, I_C = -10mA$	100	--	300	
h_{FE2}		$V_{CE} = -1V, I_C = -50mA$	60	--	--	
h_{FE3}		$V_{CE} = -2V, I_C = -100mA$	30	--	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = -50mA, I_B = -5mA$	--	--	-0.3	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C = -50mA, I_B = -5mA$	--	--	-0.95	V
f_T	Transition frequency	$V_{CE} = -20V, I_C = -10mA, f = 100MHz$	300	--	--	MHz
t_d	Delay time	$V_{CC} = -3V, V_{BE(off)} = -0.5V$	--	--	35	ns
t_r	Rise time	$I_C = -10mA, I_{B1} = I_{B2} = -1mA$	--	--	35	ns
t_s	Storage time	$V_{CC} = -3V, I_C = -10mA,$	--	--	225	ns
t_f	Fall time	$I_{B1} = I_{B2} = -1mA$	--	--	75	ns

Typical Operating Characteristics

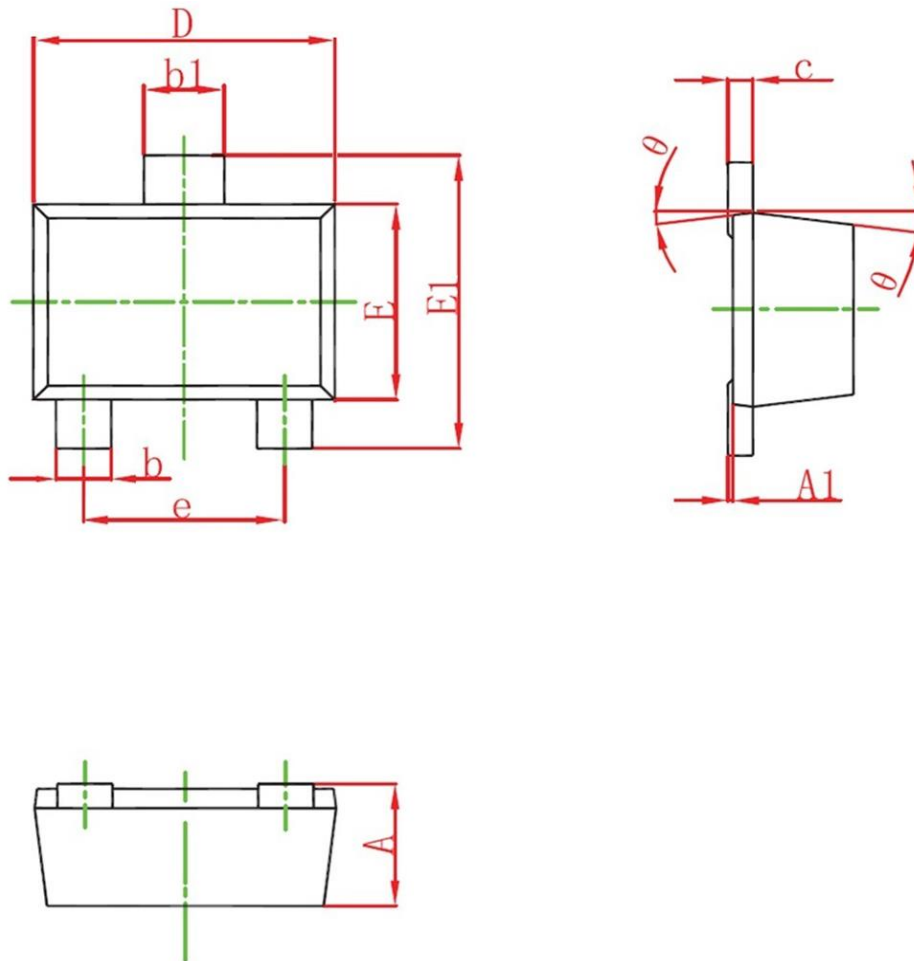




Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MMBT3906M	SOT-723	3N	8,000	120,000	480,000	7"reel

SOT-723 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.320	0.400	0.012	0.016
A1	0.000	0.050	0.000	0.002
b	0.170	0.270	0.006	0.010
b1	0.270	0.370	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.150	1.250	0.046	0.050
E	0.750	0.850	0.030	0.034
E1	1.150	1.250	0.046	0.050
e	0.800TYP		0.020TYP	
θ	7°REF		7°REF	