

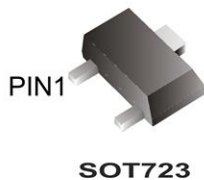
Features

- Small package.
- Complementary to MMBT3904M

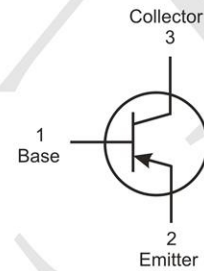
Mechanical data

- Case: SOT-723, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.

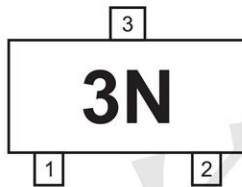
Package and Pin Configuration



Circuit diagram



Marking



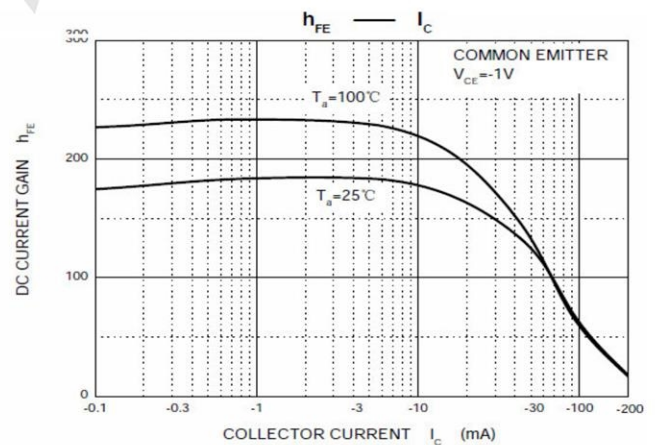
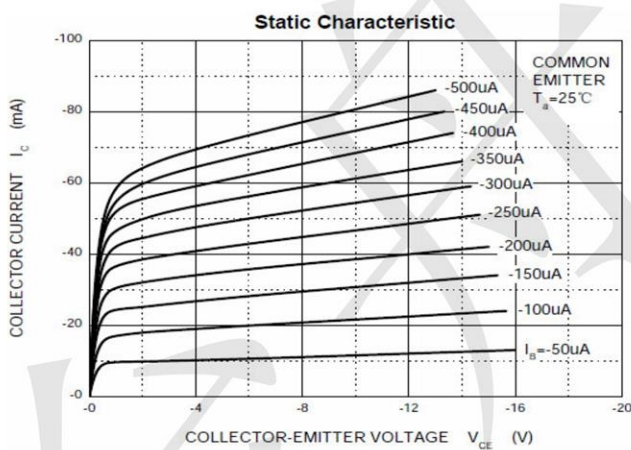
Maximum Ratings (at TA=25°C unless otherwise noted)

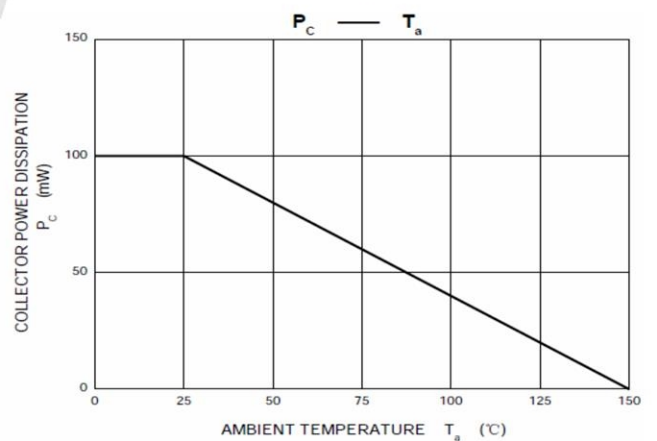
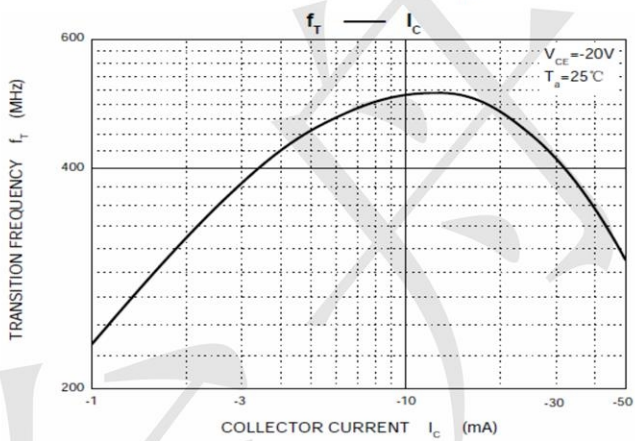
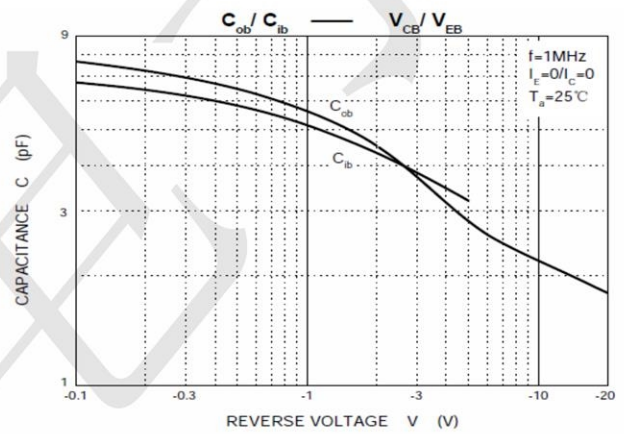
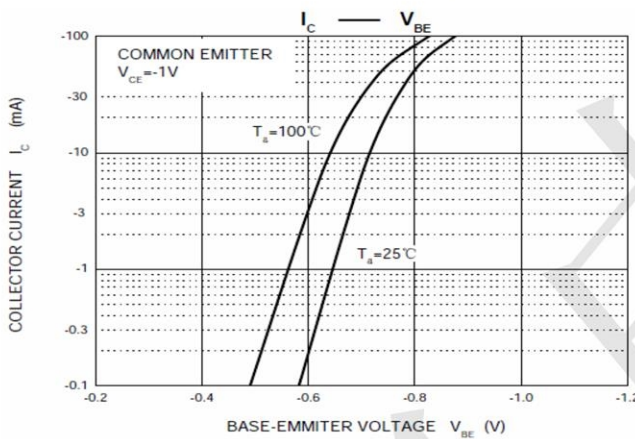
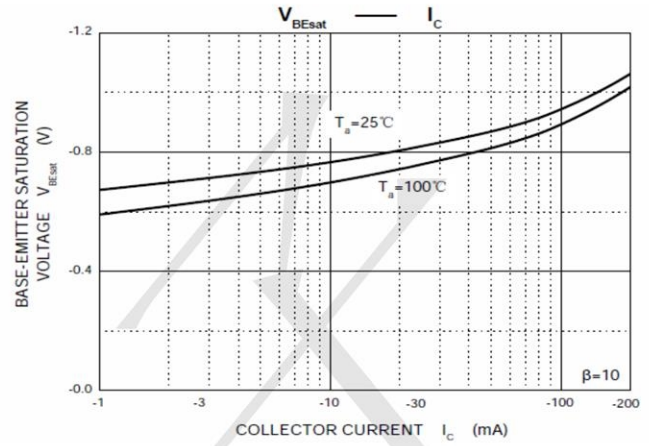
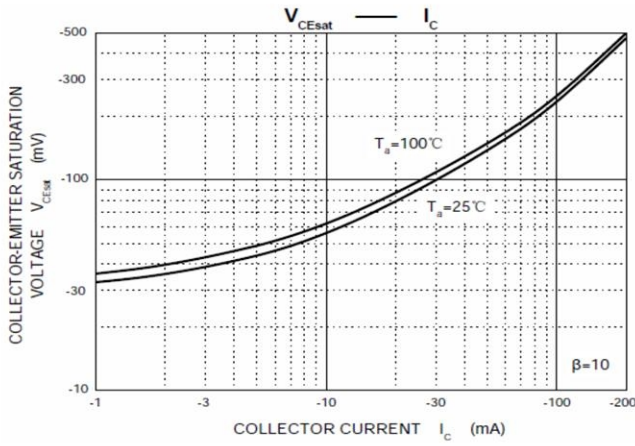
Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-0.2	A
Power Dissipation	P_C	100	mW
Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	1250	°C/W
Junction, Storage Temperature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

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

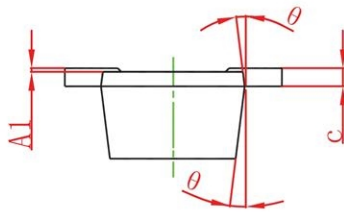
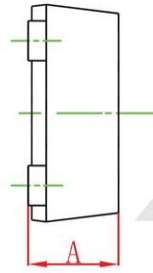
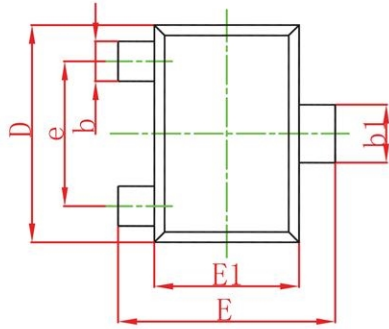
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40	-	-	V	$I_C = -10\mu\text{A}$, $I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-40	-	-	V	$I_C = -1\text{mA}$, $I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -10\mu\text{A}$, $I_C = 0$
Collector Cut-off Current	I_{CBO}	-	-	-100	nA	$V_{CB} = -40\text{V}$, $I_E = 0$
Collector Cut-off Current	I_{CEX}	-	-	-50	nA	$V_{CE} = -30\text{V}$, $V_{BE(off)} = -3\text{V}$
Emitter Cut-off Current	I_{EBO}	-	-	-100	nA	$V_{EB} = 5\text{V}$, $I_C = 0$
DC Current Gain	h_{FE}	30	-	-		$V_{CE} = -2\text{V}$, $I_C = -100\text{mA}$
		60	-	-		$V_{CE} = -1\text{V}$, $I_C = -50\text{mA}$
		100	-	300		$V_{CE} = -1\text{V}$, $I_C = -10\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.3	V	$I_C = -50\text{mA}$, $I_B = -5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-0.95	V	$I_C = -50\text{mA}$, $I_B = -5\text{mA}$
Transition Frequency	f_T	-	300	-	MHz	$V_{CE} = -20\text{V}$, $I_C = -10\text{mA}$, $f = 100\text{MHz}$
Delay Time	t_d	-	35	-	nS	$V_{CC} = -3\text{V}$, $V_{BE(off)} = -0.5\text{V}$ $I_C = -10\text{mA}$, $I_{B1} = I_{B2} = -1\text{mA}$
Rise Time	t_r	-	35	-		
Storage Time	t_s	-	225	-		
Fall Time	t_f	-	75	-		

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)





SOT-723 Package Outline Dimensions



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.	