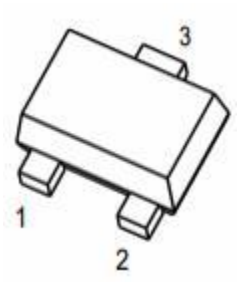
■ FEATURES

- Complement to MMBT3906M
- Collector-Emitter Voltage :Vceo=40V
- Collector Dissipation :Pc=100mW(Ta=25℃)

■ MARKING:1N

SOT-723



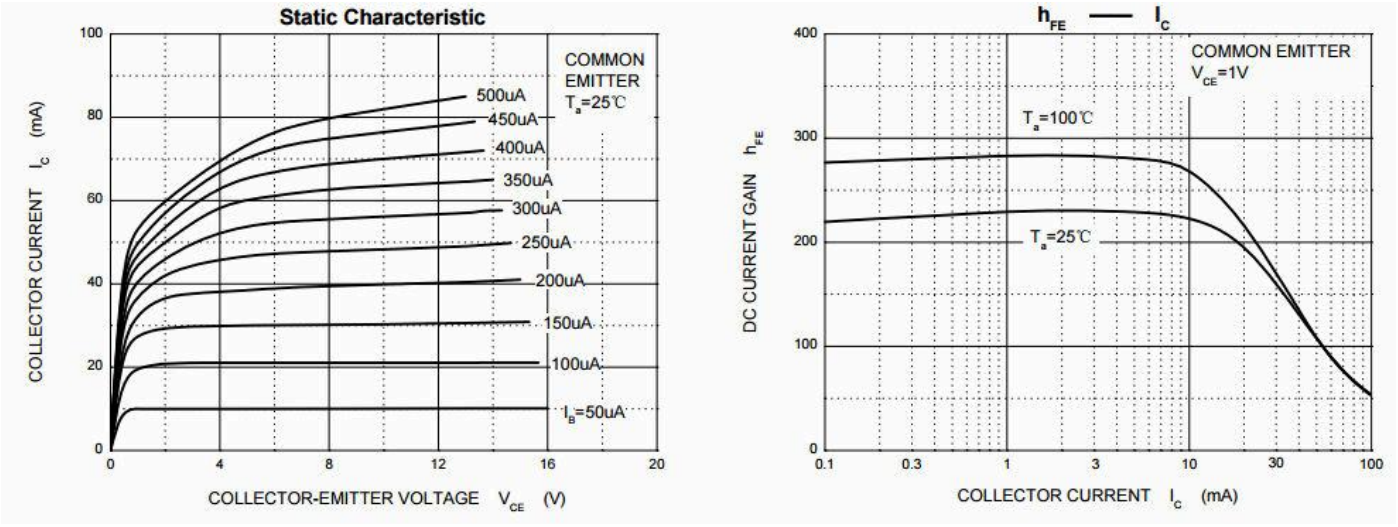
NO.	1	2	3
PIN	B	E	C

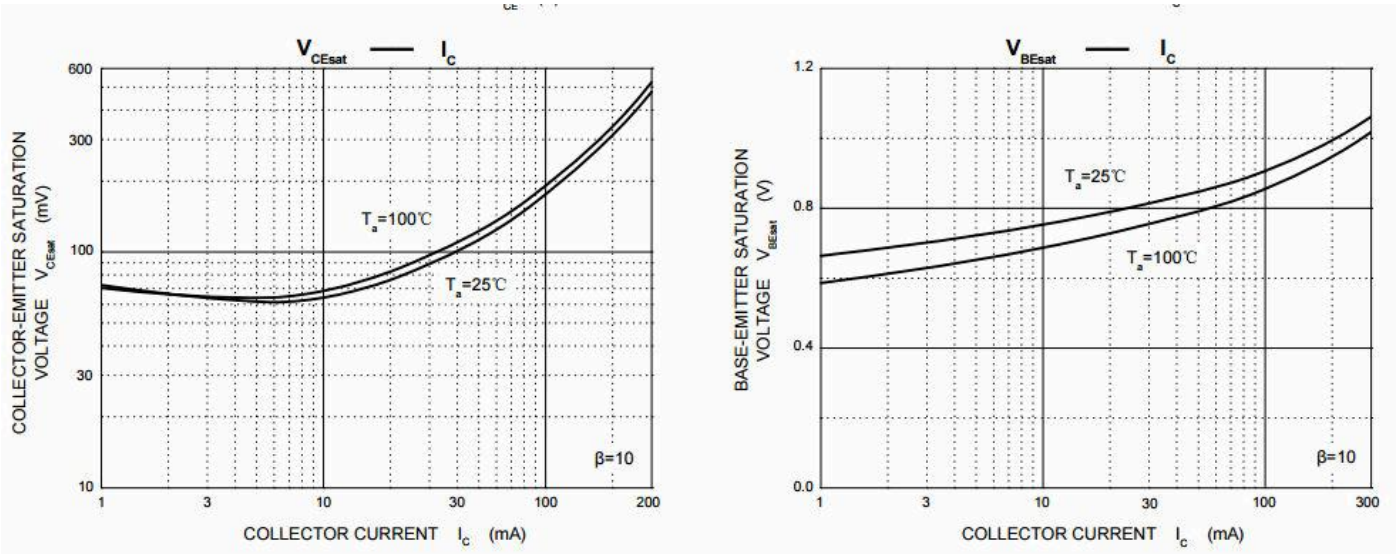
■ Absolute Maximum Ratings (Tamb=25℃)

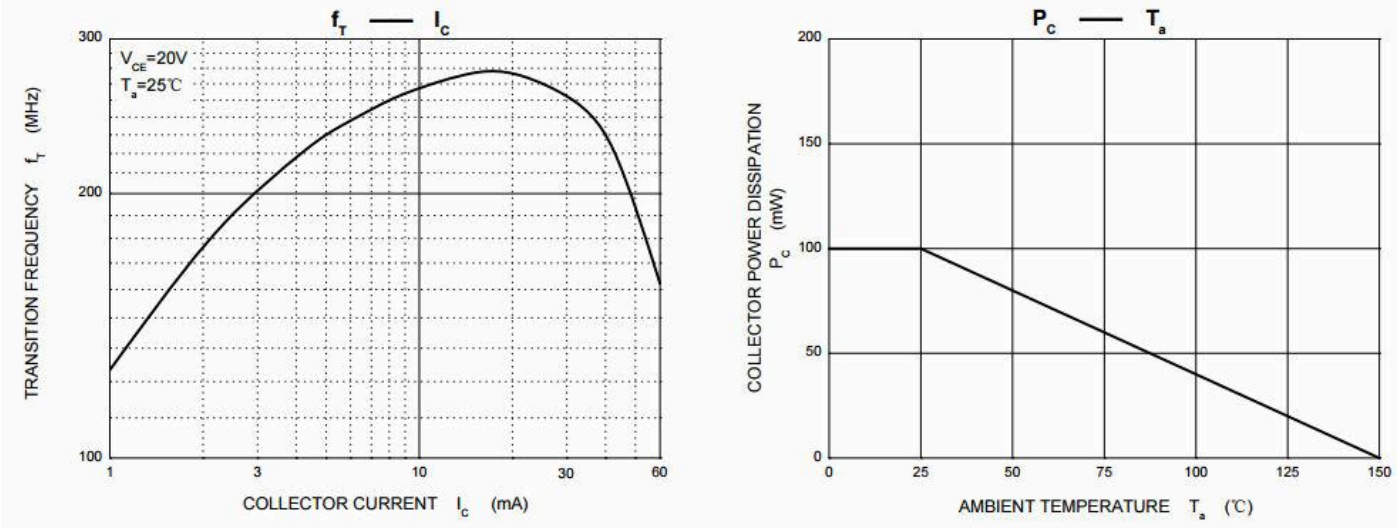
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	Vcbo	60	V
Collector-Emitter Voltage	Vceo	40	V
Emitter-Base Voltage	Vebo	6	V
Collector Current	Ic	200	mA
Collector Dissipation	Pc	100	mW
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55~150	℃

■ Electrical Characteristics (Tamb=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BVcbo	Ic=10uA, Ie=0	60			V
Collector-Emitter Breakdown Voltage	BVceo	Ic =1mA, Ib=0	40			V
Emitter-Base Breakdown Voltage	BVebo	Ie=10uA, Ic=0	6			V
Collector Cutoff Current	Icex	Vce=30V, Veb=3V			50	nA
Emitter Cutoff Current	Iebo	Veb=5V, Ic=0			100	nA
DC Current Gain	Hfe_1	Vce=1V, Ic=0.1mA	40			
DC Current Gain	Hfe_2	Vce=1V, Ic=1mA	70			
DC Current Gain	Hfe_3	Vce=1V, Ic=10mA	100		300	
DC Current Gain	Hfe_4	Vce=1V, Ic=50mA	60			
Collector-Emitter Saturation Voltage	$Vce_{(sat)}$	Ic=10mA, Ib=1mA			0.2	V
Collector-Emitter Saturation Voltage	$Vce_{(sat)}$	Ic=50mA, Ib=5mA			0.3	V
Base-Emitter Saturation Voltage	$Vbe_{(sat)}$	Ic=10mA, Ib=1mA			0.85	V
Base-Emitter Saturation Voltage	$Vbe_{(sat)}$	Ic=50mA, Ib=5mA			0.95	V
Output Capacitance	Cob	Vcb=5V, Ie=0, f=1MHz			4	pF
Current Gain-Bandwidth Product	fT	Vce=20V,Ic=10mA f=100MHz	300			MHz


Static Characteristic
COMMON EMITTER
T_a=25℃
500uA
450uA
400uA
350uA
300uA
250uA
200uA
150uA
100uA
I_B=50uA
COLLECTOR CURRENT I_C (mA)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)
h_{FE} — I_C
COMMON EMITTER
V_{CE}=1V
T_a=100℃
T_a=25℃
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)


V_{CEsat} — I_C
T_a=100℃
T_a=25℃
β=10
COLLECTOR-EMITTER SATURATION VOLTAGE V_{CEsat} (mV)
COLLECTOR CURRENT I_C (mA)
V_{BEsat} — I_C
T_a=25℃
T_a=100℃
β=10
BASE-EMITTER SATURATION VOLTAGE V_{BEsat} (V)
COLLECTOR CURRENT I_C (mA)


f_T — I_C
V_{CE}=20V
T_a=25℃
TRANSITION FREQUENCY f_T (MHz)
COLLECTOR CURRENT I_C (mA)
P_C — T_a
COLLECTOR POWER DISSIPATION P_C (mW)
AMBIENT TEMPERATURE T_a (℃)

■ SOT-723 PACKAGE OUTLINE DIMENSIONS