

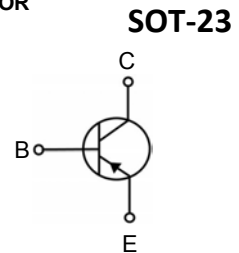
Features

- General Purpose Amplifier Applications

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MMBTA56	SOT-23	2GM	3000

1. BASE
2. EMITTER
3. COLLECTOR



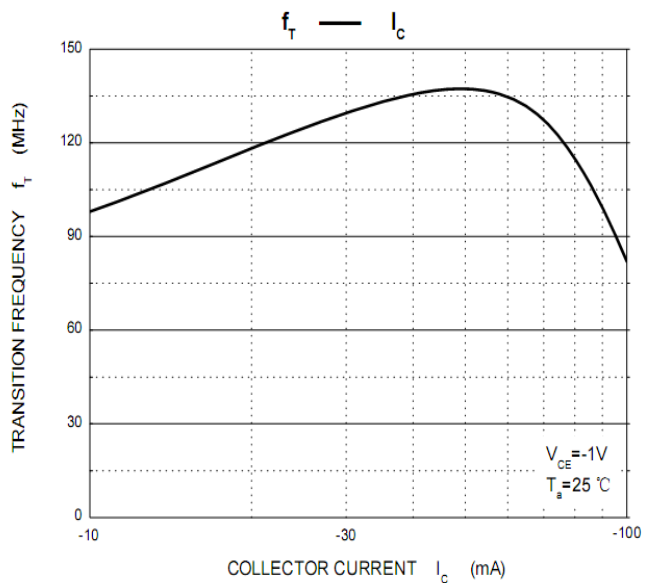
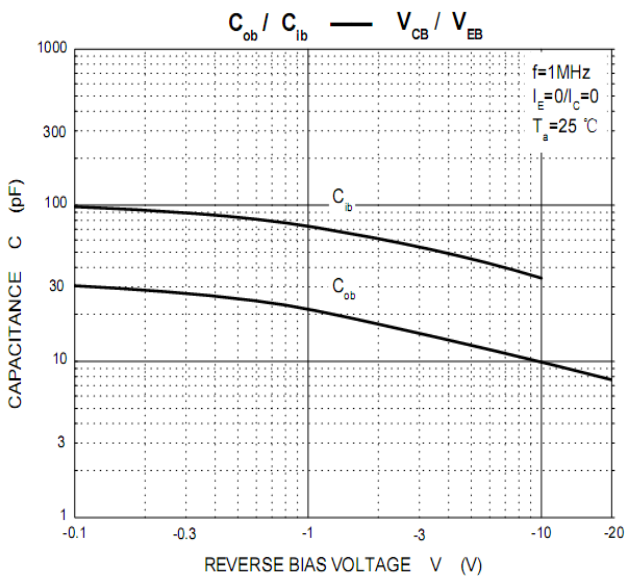
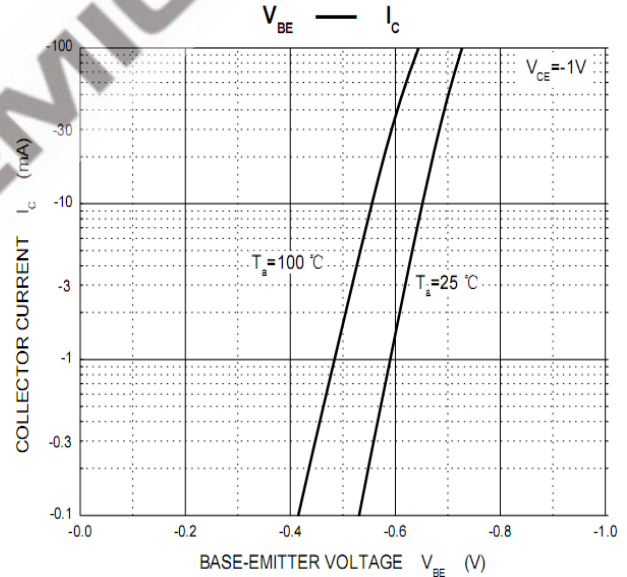
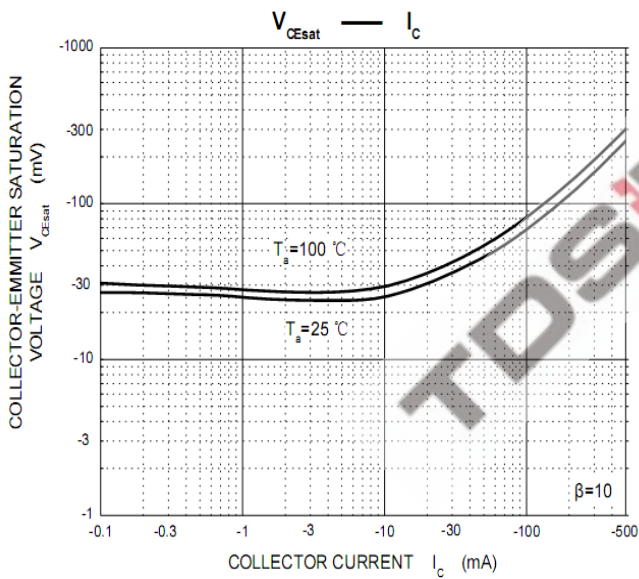
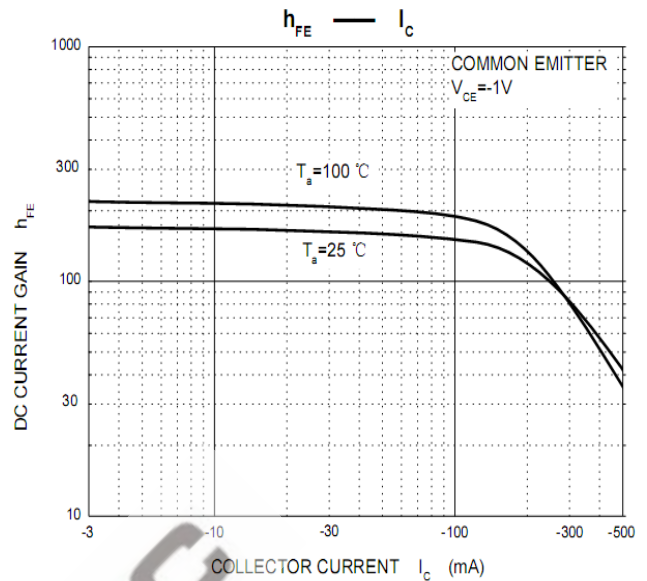
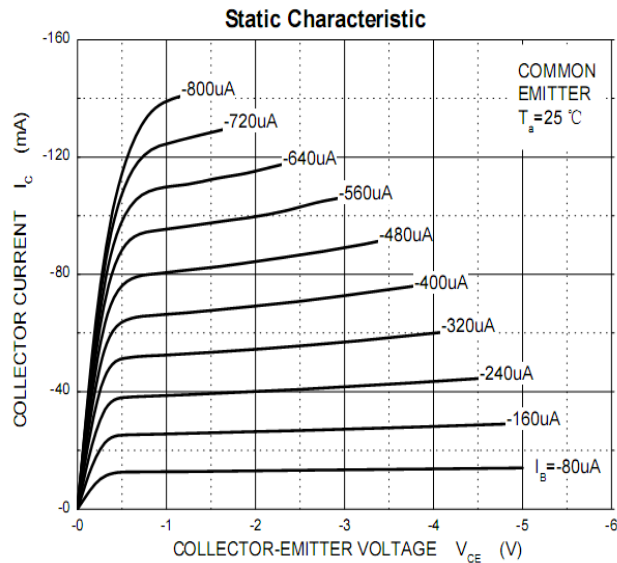
Maxmim Ratings (Ta=25 unless otherwise noted)

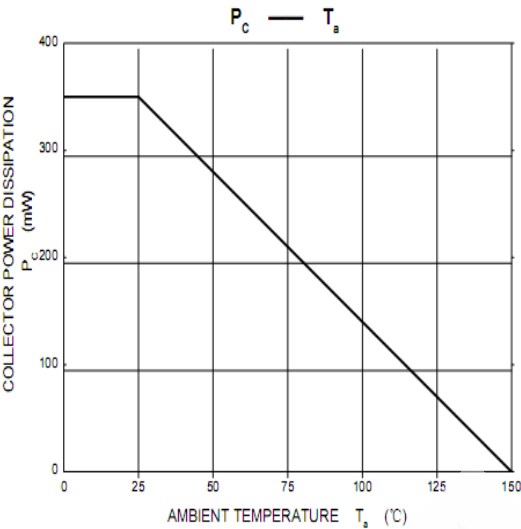
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-4	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	225	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	555	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

Electrcal Characteristics (Ta=25 unless otherwise specified)

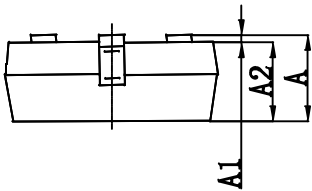
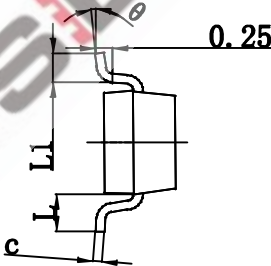
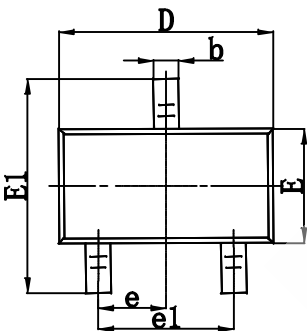
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-4			V
Collector cut-off current	I_{CBO}	$V_{CB} = -80V, I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -60V, I_B = 0$			-1	μA
Emitter-base breakdown voltage	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -10mA$	100		400	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -100mA$	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$			-0.25	V
Base-emitter voltage	V_{BE}	$V_{CE} = -1V, I_C = -100mA$			-1.2	V
Transition frequency	f_T	$V_{CE} = -1V, I_C = -100mA, f = 100MHz$	50			MHz

Typical Characteristics





SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°