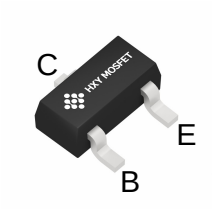
MMBTA56

PNP Plastic-Encapsulate Transistors

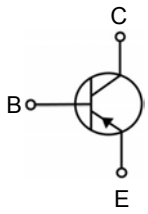
Features

- General Purpose Amplifier Applications



1. BASE
2. EMITTER
3. COLLECTOR

SOT-23



Package Marking and Ordering Information

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

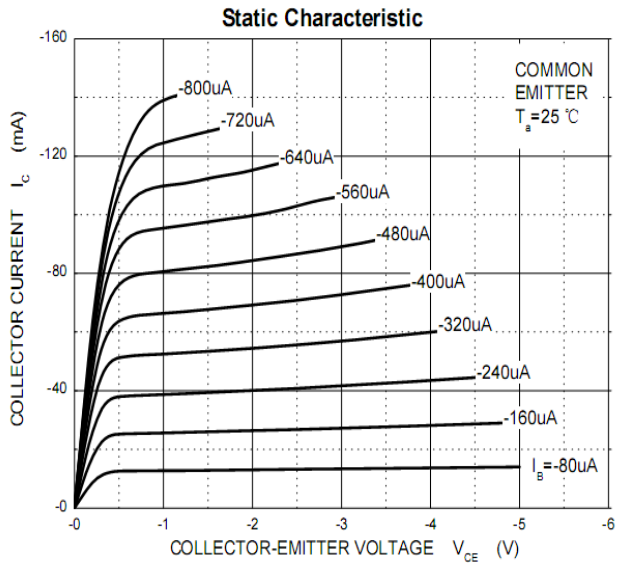
Maximum Ratings (Ta=25°C unless otherwise noted)

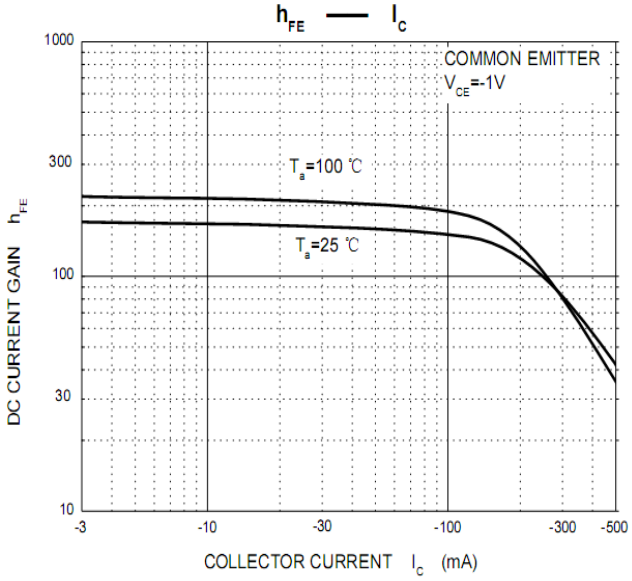
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-4	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	225	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	555	℃/W
T_J,T_{stg}	Operation Junction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

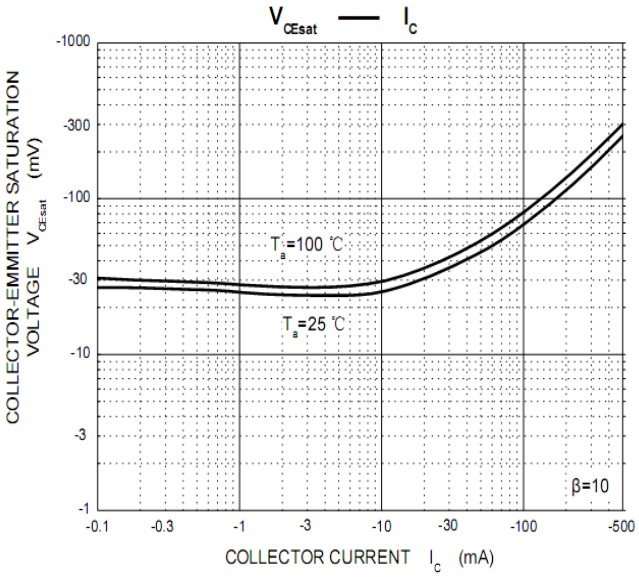
Electrical Characteristics (Ta=25 °C unless otherwise noted)

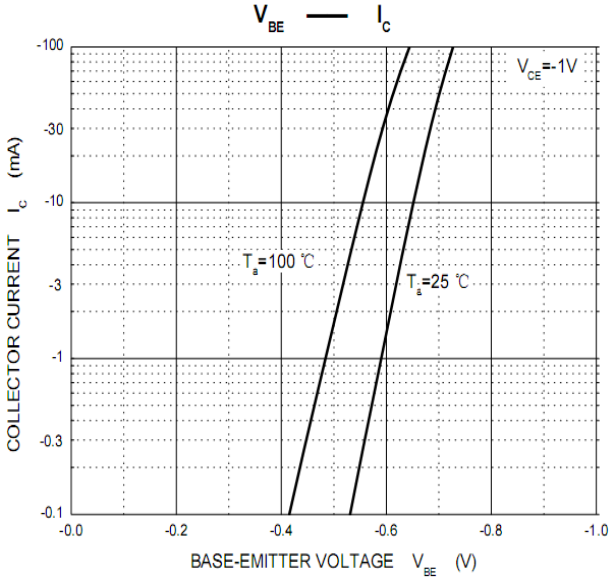
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA, I_E=0	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-4			V
Collector cut-off current	I_{CBO}	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

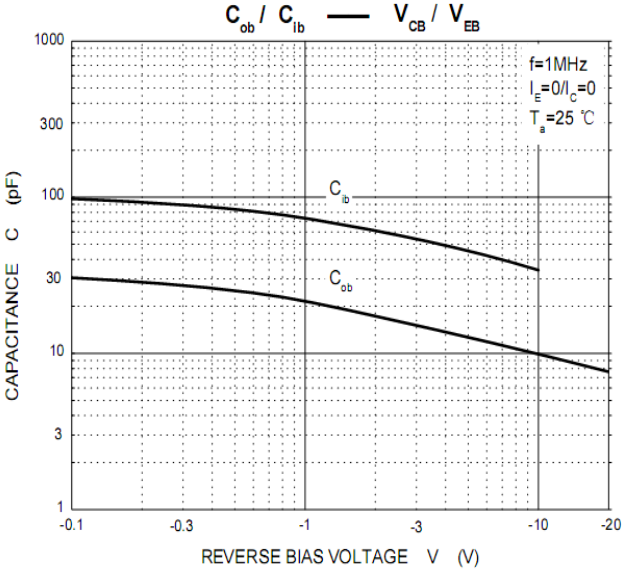
Typical Characteristics

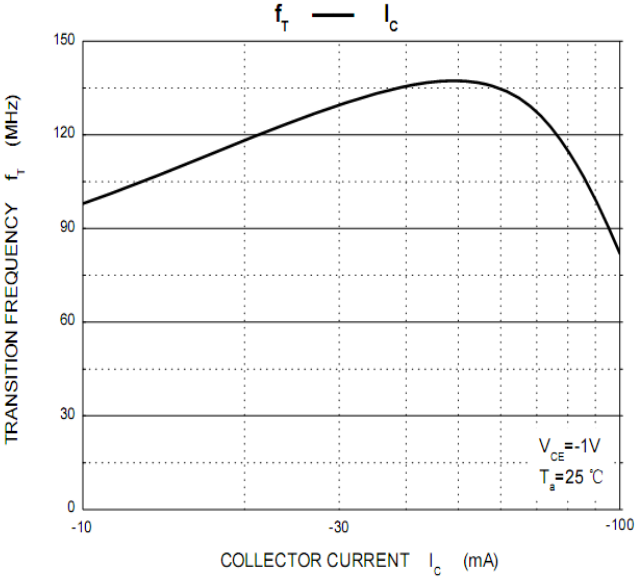


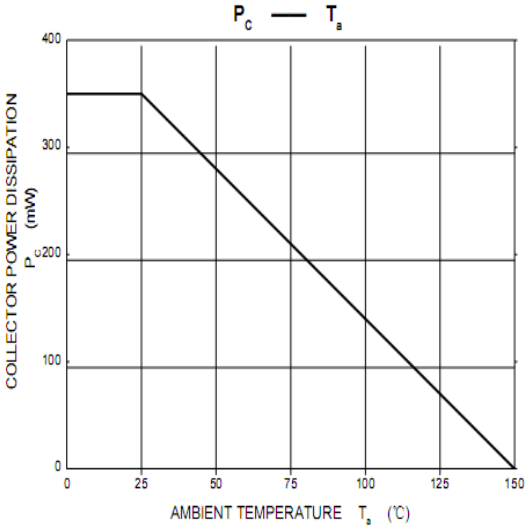




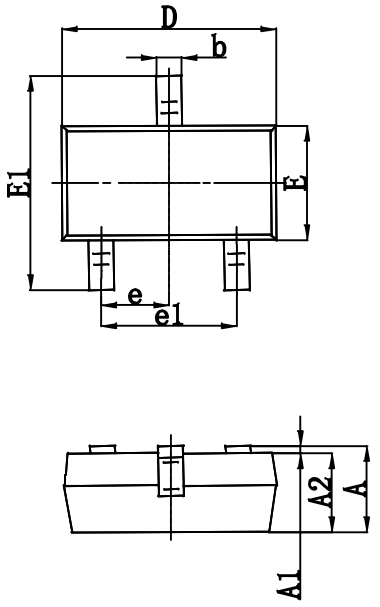


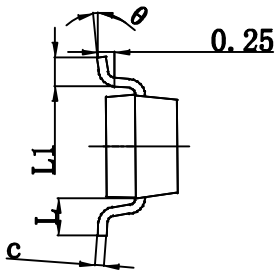






SOT-23 Package Outline Dimensions





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°

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