CHINA BASE
INTERNATIONAL

SOT-323

MMBTA06W

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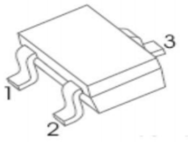
TRANSISTOR (NPN)

FEATURES

- For Switching and Amplifier Applications
- Complementary Type PNP Transistor MMBTA56W

SOT－323



1. BASE
2. EMITTER
3. COLLECTOR

MARKING: 1GM

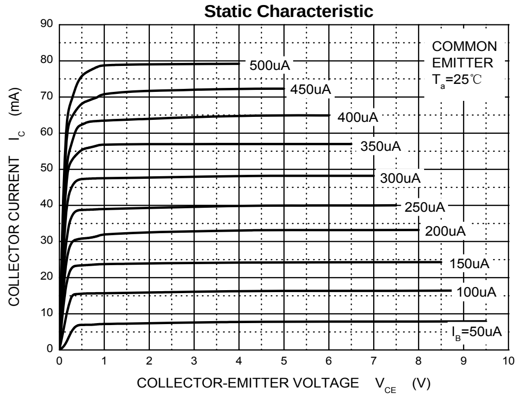
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

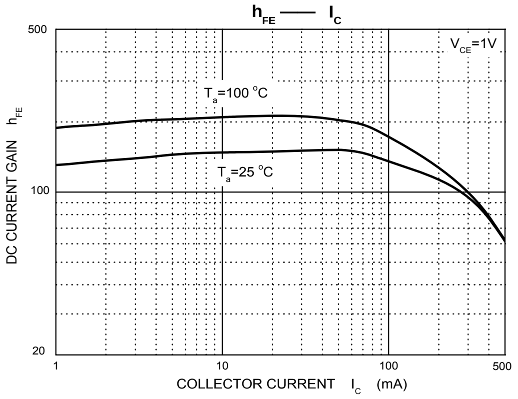
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	500	mA
P_C	Collector Power Dissipation	200	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	416	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

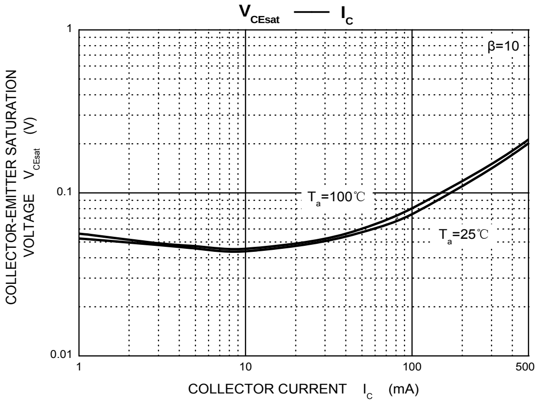
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

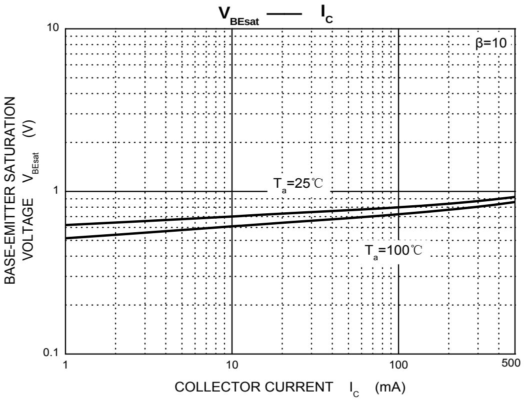
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=0.1mA, I_E=0	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=0.1mA, I_C=0	4			V
Collector cut-off current	I_{CBO}	V_{CB}=80V, I_E=0			0.1	µA
Collector cut-off current	I_{CES}	V_{CE}=60V, I_B=0			0.1	µA
Emitter cut-off current	I_{EBO}	V_{EB}=3V, 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 saturation voltage	$V_{BE(sat)}$	I_C=100mA, I_B=10mA			1.2	V
Transition frequency	f_T	V_{CE}=2V, I_C=10mA, f=100MHz	100			MHz

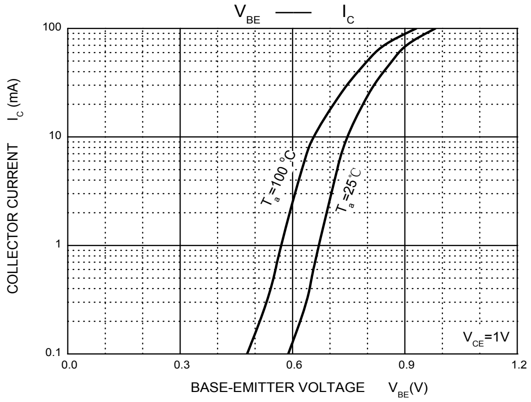
Typical Characteristics

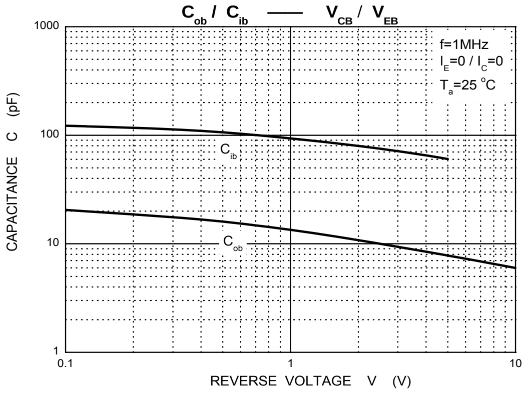


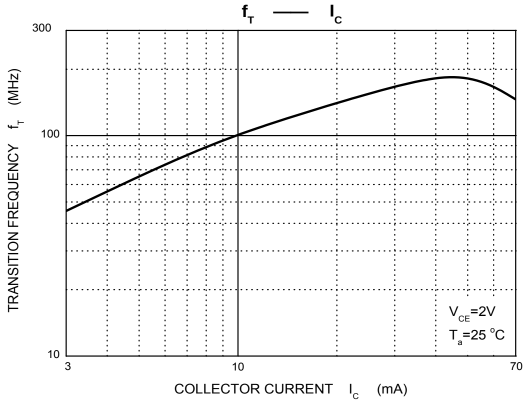


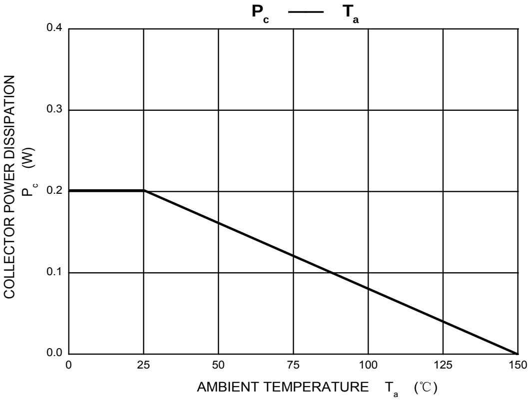




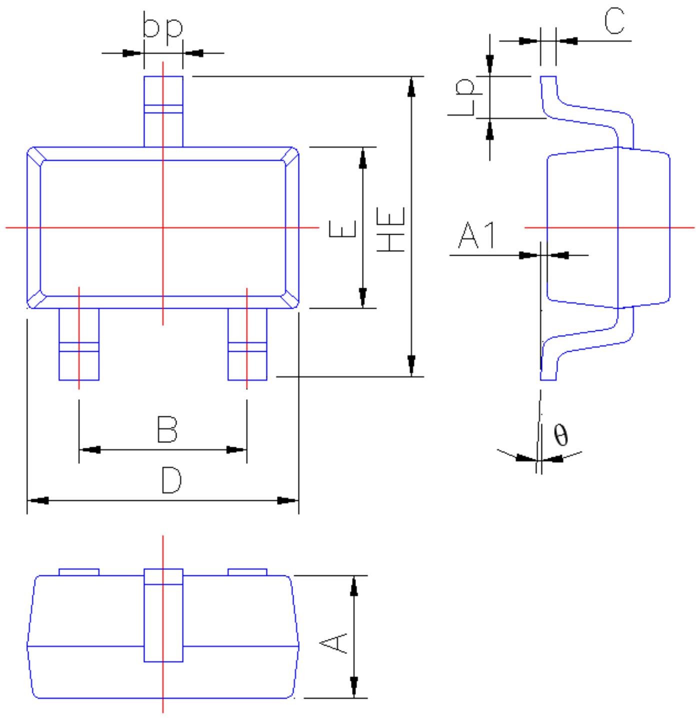








SOT-323 Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.00
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.45
C	0.09	0.15
D	2.00	2.20
E	1.15	1.35
HE	2.15	2.55
Lp	0.25	0.46
θ	0°	6°