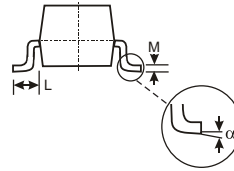
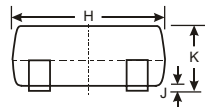
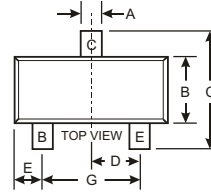


Features

- Epitaxial Planar Die Construction.
- Complementary PNP Type Available(MMBTA56).
- Ideal for Medium Power Amplification and Switching.
- Marking Code:1GM

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CEO}	80	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_C	500	mA
Power Dissipation	P_d	300	mW
Junction to Ambient	$R_{\theta JA}$	416	$^\circ\text{C/W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$



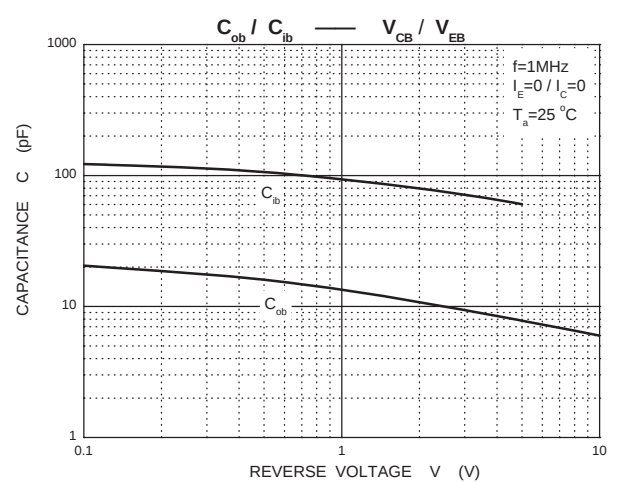
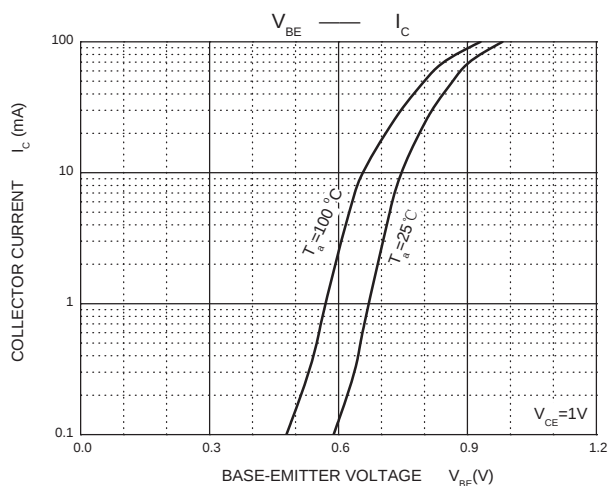
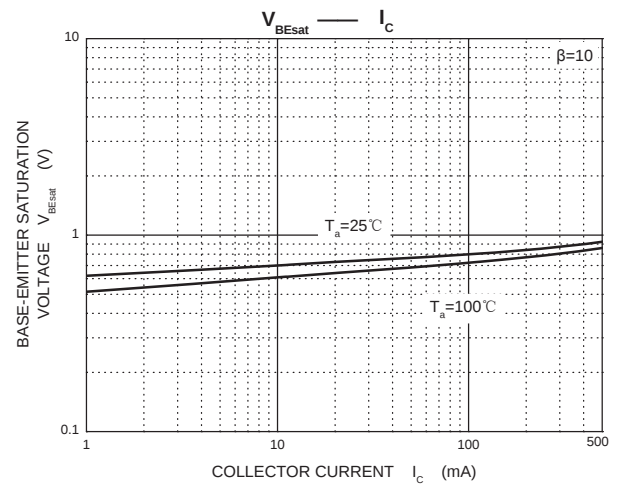
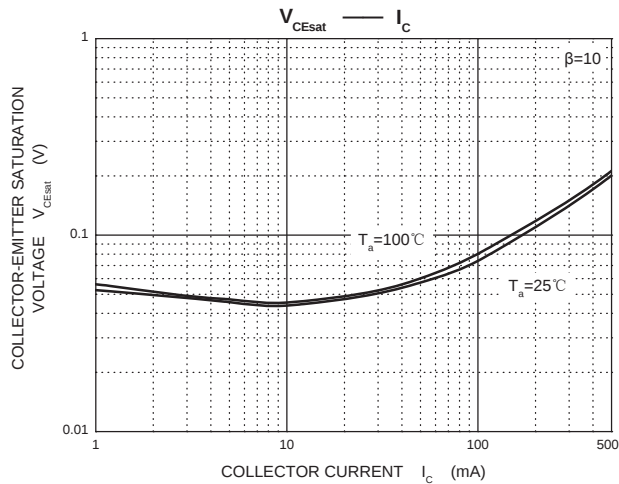
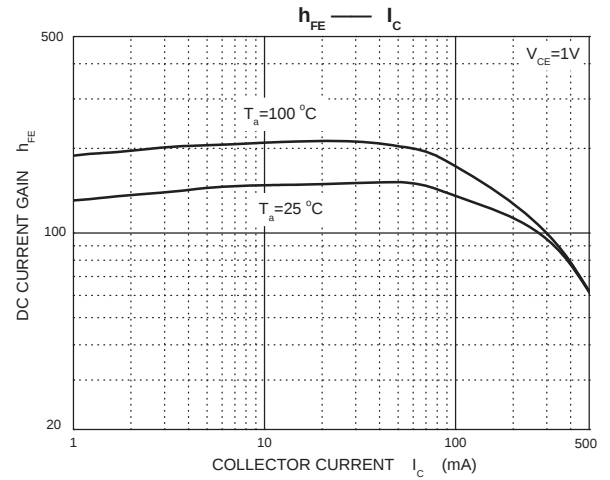
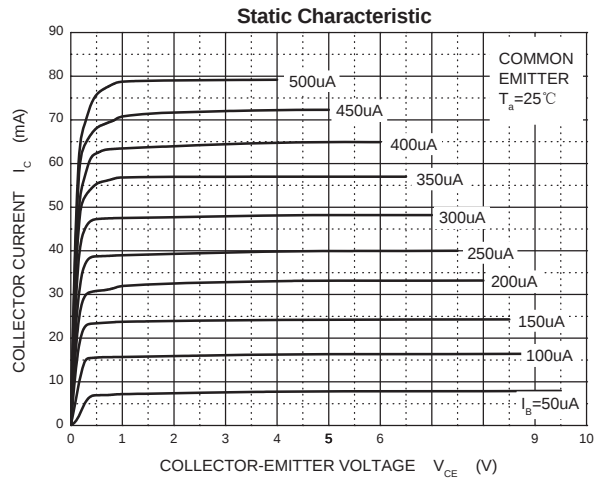
SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}$, $I_E = 0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}$, $I_B = 0$	80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}$, $I_C = 0$	4			V
Collector-base cutoff current	I_{CBO}	$V_{CB} = 80\text{V}$, $I_E = 0$			0.1	μA
Collector-emitter cutoff current	I_{CEO}	$V_{CE} = 60\text{V}$, $I_B = 0$			0.1	μA
Emitter-base cutoff current	I_{EBO}	$V_{EB} = 3\text{V}$, $I_C = 0$			0.1	μA
DC current gain	h_{FE1}	$V_{CE} = 1\text{V}$, $I_C = 10\text{mA}$	100		400	
	h_{FE2}	$V_{CE} = 1\text{V}$, $I_C = 100\text{mA}$	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}$, $I_B = 10\text{mA}$			0.25	V
Base-emitter voltage	V_{BE}	$V_{CE} = 1\text{V}$, $I_C = 100\text{mA}$			1.2	V
Transition frequency	f_T	$V_{CE} = 2\text{V}$, $I_C = 10\text{mA}$ $f = 100\text{MHz}$	100			MHz

*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycles $\leq 2.0\%$.

TYPICAL TRANSIENT CHARACTERISTICS



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