

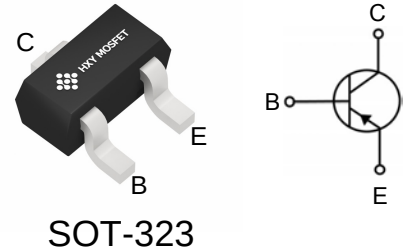


Features

- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
SMMBTA56WT3G	SOT-323	K4M	3000



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

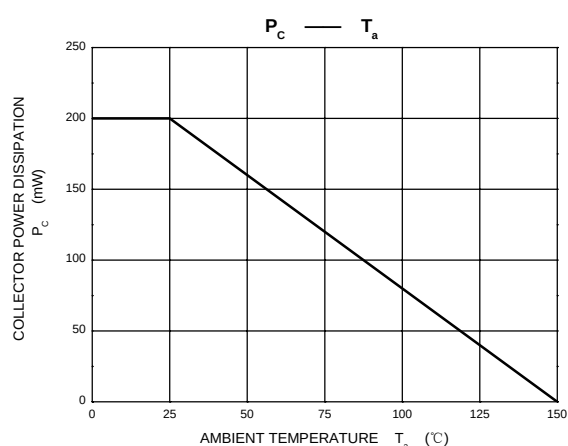
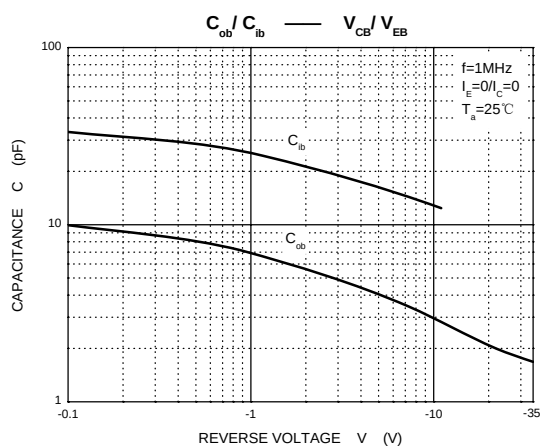
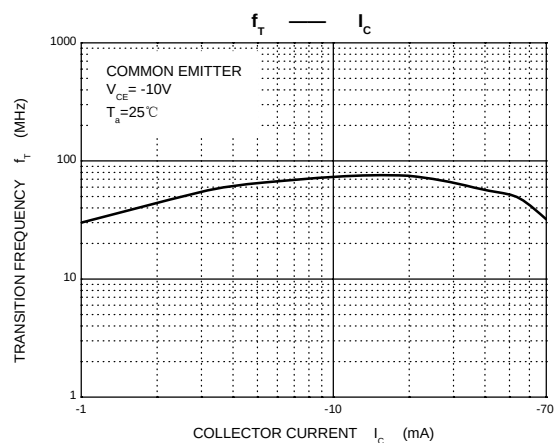
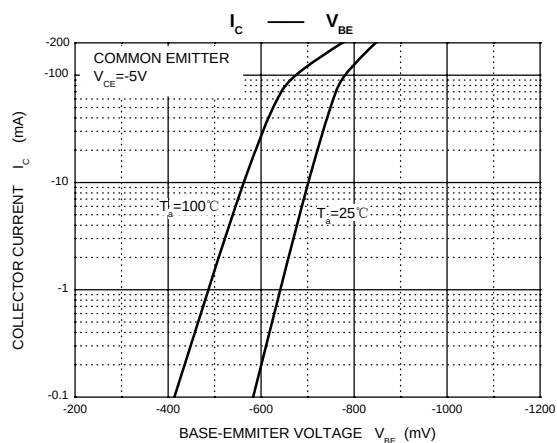
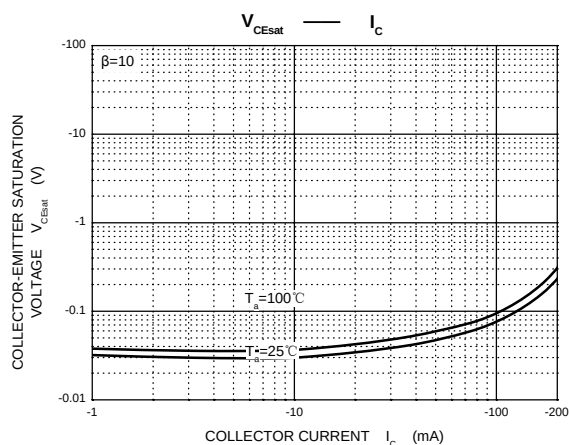
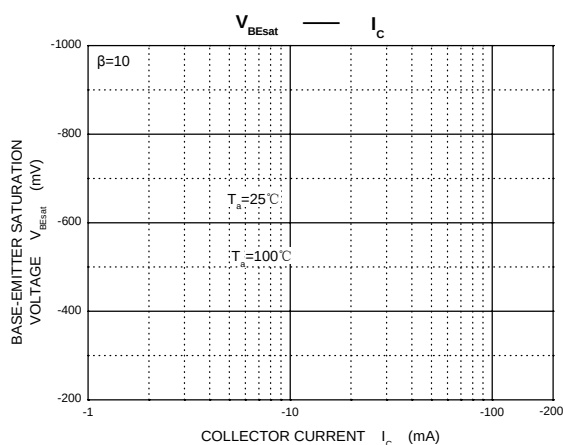
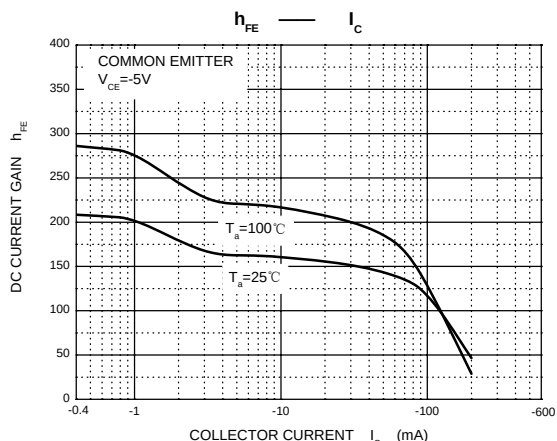
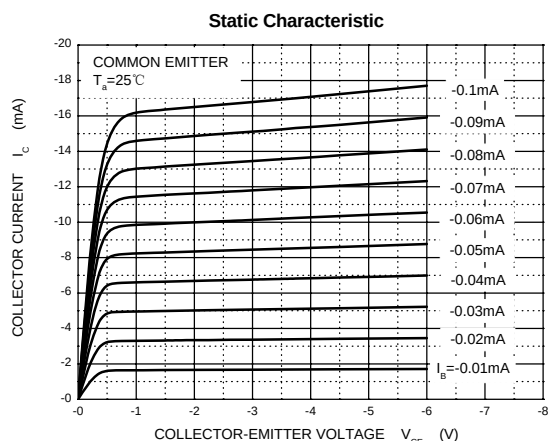
Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-160	V
V _{CEO}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current-Continuous	-600	mA
P _C	Collector Power Dissipation	200	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	625	°C/W
T _{stg}	Storage Temperature	-55-150	°C

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	-160		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-150		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-5		V
Collector cut-off current	I _{CBO}	V _{CB} =-120V, I _E =0		-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0		-50	nA
DC current gain	h _{FE}	V _{CE} =-5V, I _C =-1mA	50		
		V _{CE} =-5V, I _C =-10mA	100	300	
		V _{CE} =-5V, I _C =-50mA	50		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-50mA, I _B =-5mA		-0.5	V
		I _C =-10mA, I _B =-1mA		-0.2	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-50mA, I _B =-5mA		-1	V
		I _C =-10mA, I _B =-1mA		-1	V
Transition frequency	f _T	V _{CE} =-10V, I _C =-10mA, f=100MHz	100		MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		6	pF

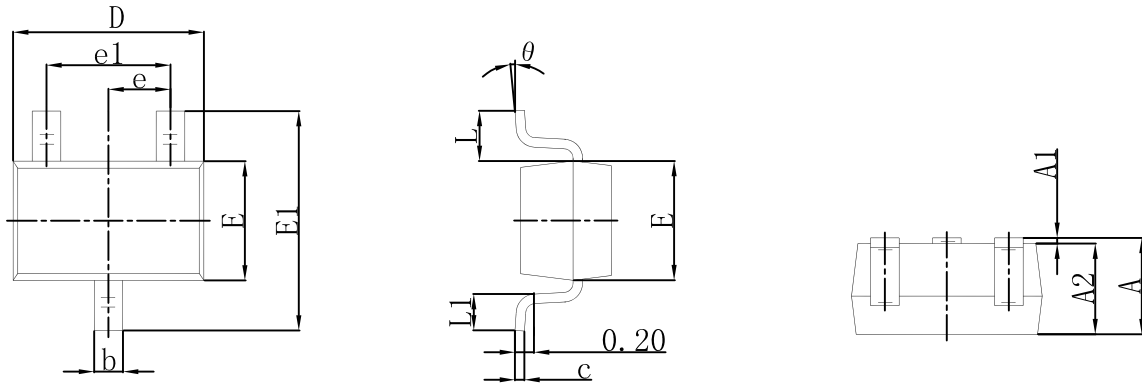


Typical Characteristics



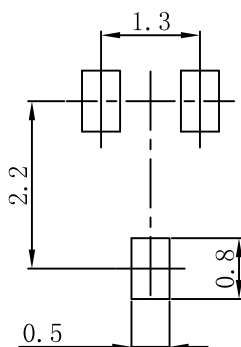


Package Dimensions SOT-323



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
K	0°	8°	0°	8°

SOT-323 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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