SOT-23 Plastic-Encapsulate Transistors

Features

- Cmplementary to MMBTA06
- 225mW Power Dissipation of 225mW
- High Stability and High Reliability

Mechanical Data

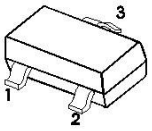
- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

RoHS COMPLIANT

Marking: 2GM

SOT-23

Pin definition



1. BASE
2. EMITTER
3. COLLECTOR

Maximum Ratings & Electrical Characteristics (T_A=25℃ unless otherwise noted)

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-Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	225	mW
Operating junction temperature range	T_J	150	°C
Storage temperature range	T_{STG}	-55-+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	555	℃/W

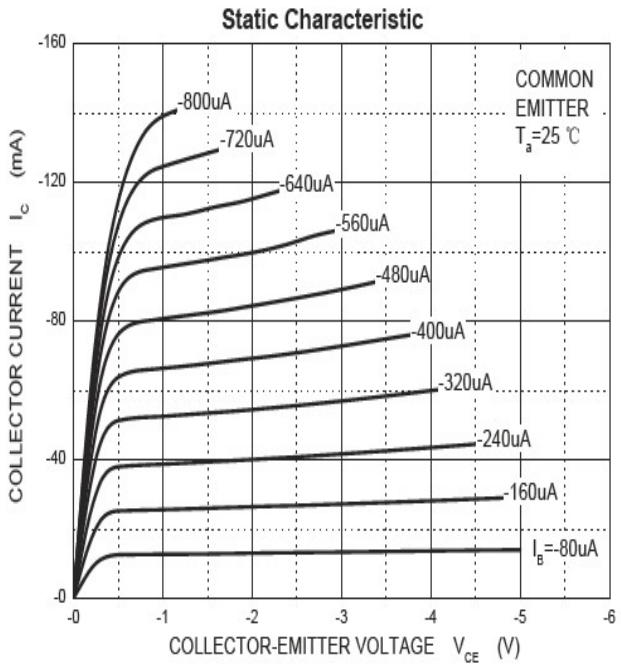
Electrical Specifications (T_A=25℃ unless otherwise noted)

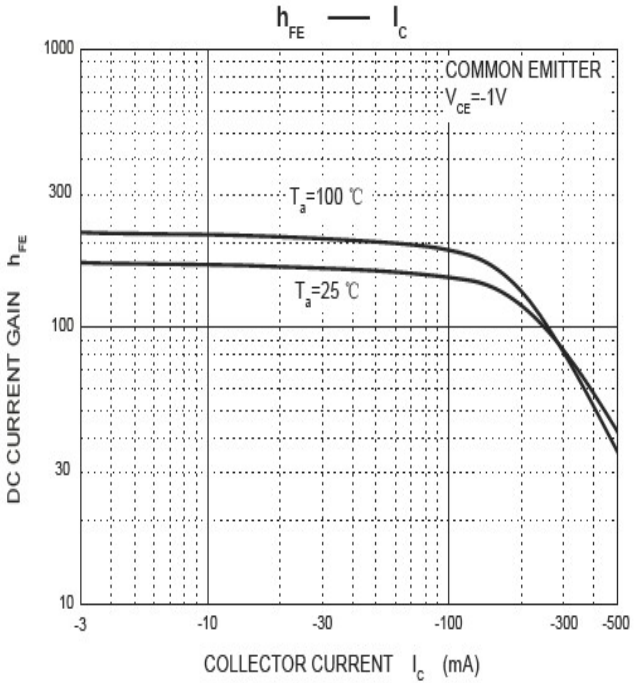
Parameter	Symbol	Test Conditions	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	IC=-100uA, IE=0	-80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	IC=-1mA, IB=0	-80		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	IE=-100uA, IC=0	-4		V
Collector cut-off current	I_{CBO}	VCB=-80V, IE=0		-100	nA
Collector cut-off current	I_{EBO}	VEB=-4V, IC=0		-100	nA
Emitter cut-off current	I_{CEO}	VCE=-60V, IB=0		-1.0	uA
DC current gain	hFE	VCE=-1V, IC=-10mA	100	400	
		VCE=-1V, IC=-100mA	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	IC=-100mA, IB=-10mA		-0.25	V
Base -emitter saturation voltage	VBE	VCE=-1V, IC=-100mA		-1.20	V
Transition frequency	fT	VCE=-1V, IC=-100mA,f=100MHz	50		MHz

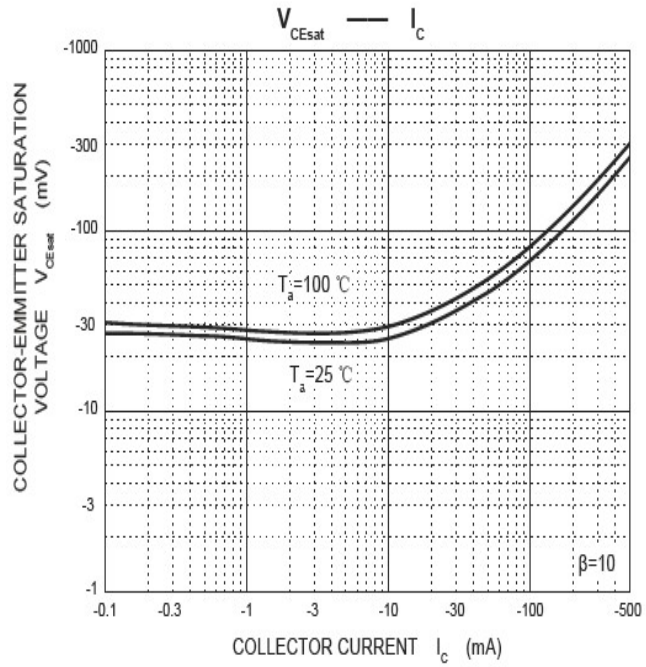
*Pulse test: pulse width≤300us, duty cycle≤2.0%

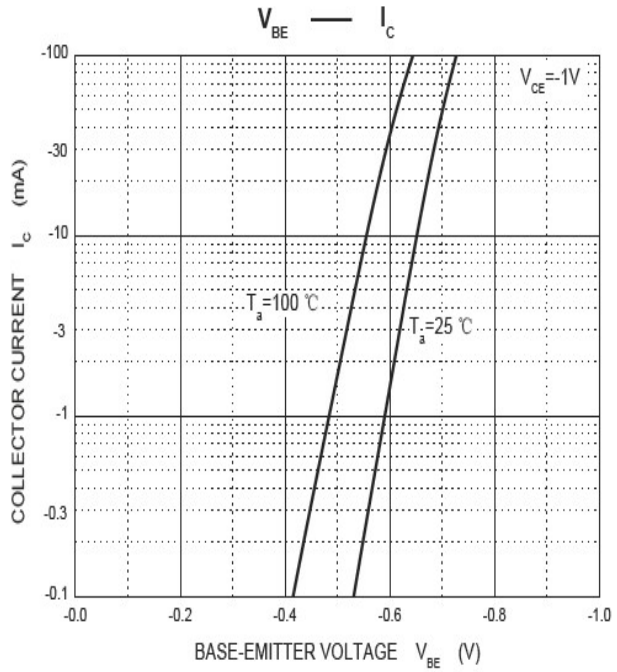
Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)









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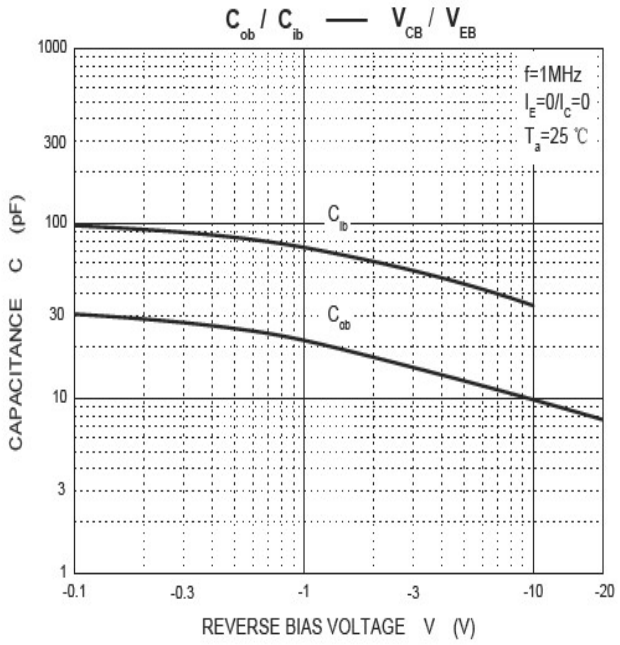
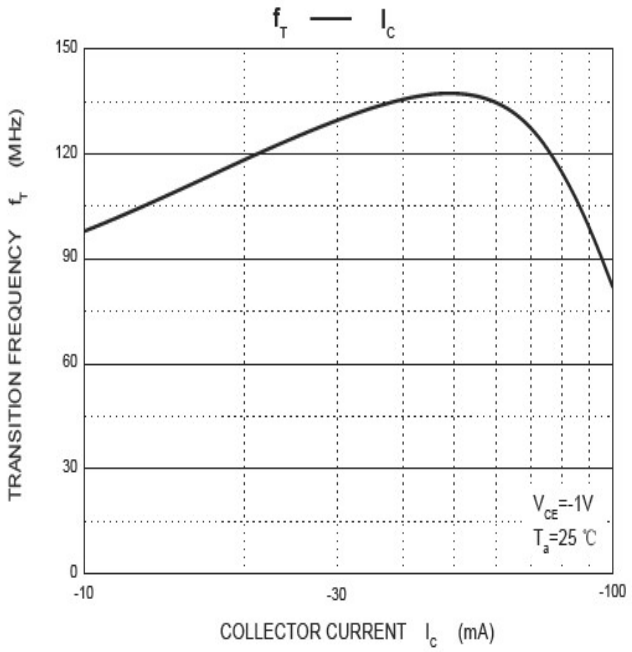
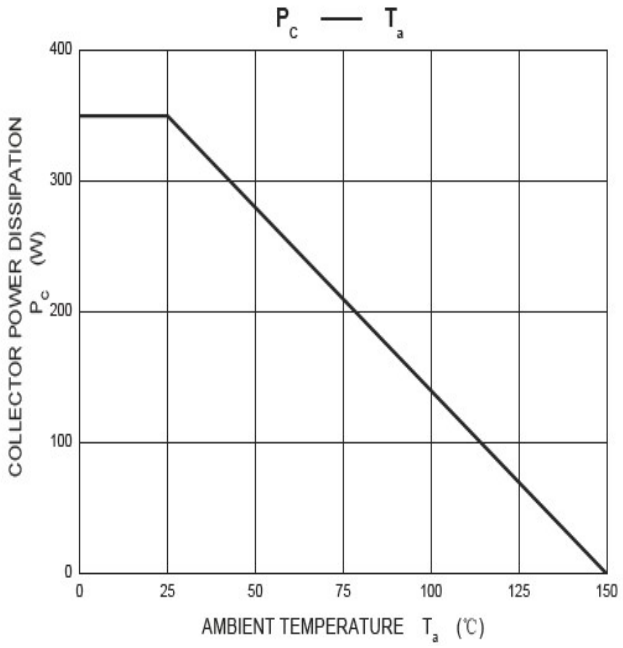
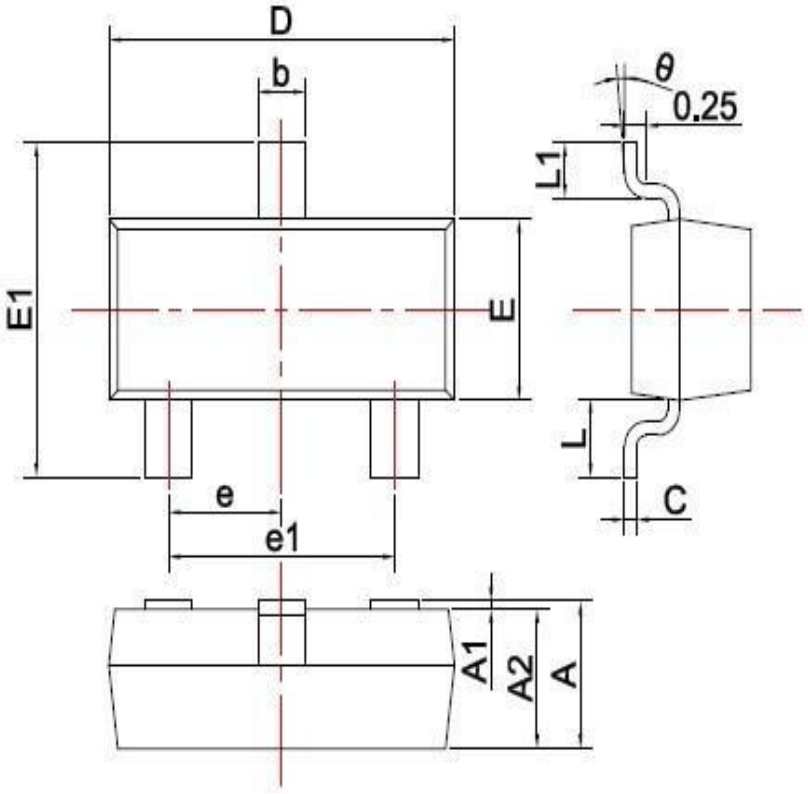






Package Outline Dimensions

millimeters



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.09.20	First issue

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