

Features

- Low profile package
- Ideal for automated placement
- Complementary to MMBT3906 (PNP)
- Power Dissipation of 200mW
- High Stability and High Reliability

Mechanical Data

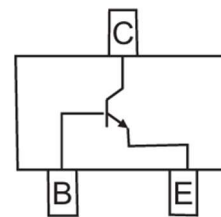
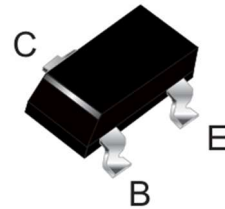
- Package: SOT-23
- UL Flammability Classification Rating 94V-0
- Terminals: Plated solderable per MIL-STD-750, Method 2026
- Tape Reel: 3000pcs

Application

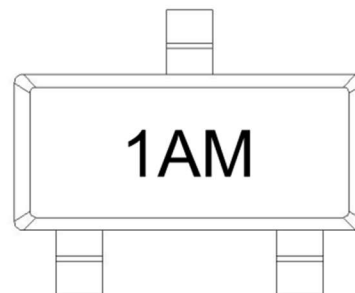
- Amplifying signal
- Electronic switch
- Oscillating circuit
- Variable resistance

Appearance & Symbol

SOT-23



Marking information



1AM= Marking Code

Absolute Maximum Ratings (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	60	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current - Continuous	I _C	200	mA
Collector Power Dissipation	P _C	200	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	625	°C/W
Junction Temperature	T _J	-55 to +150	°C
Junction and Storage Temperature	T _{STG}	-55 to +150	°C

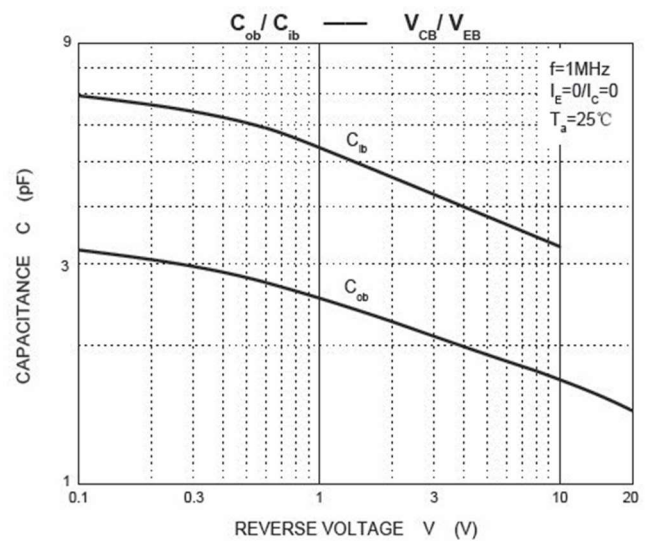
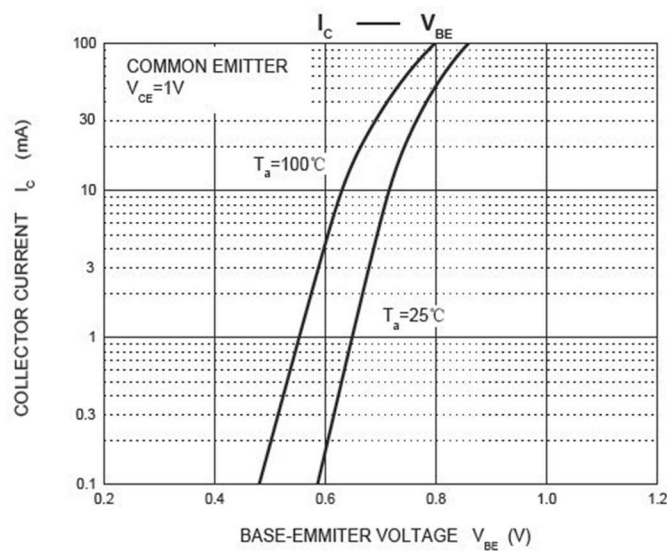
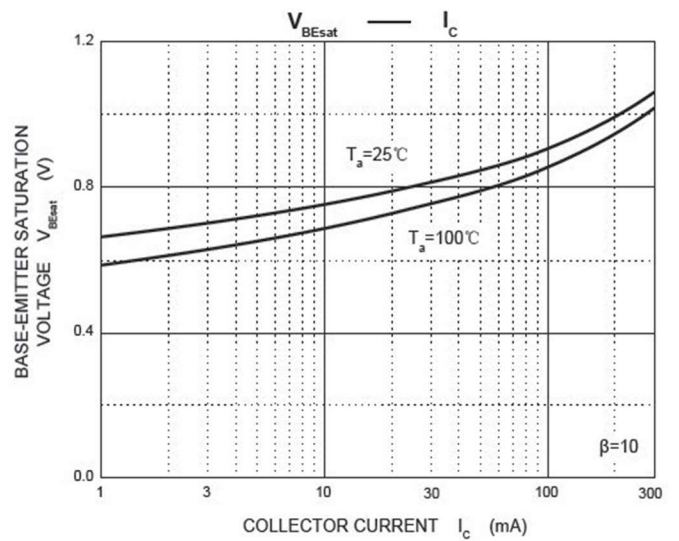
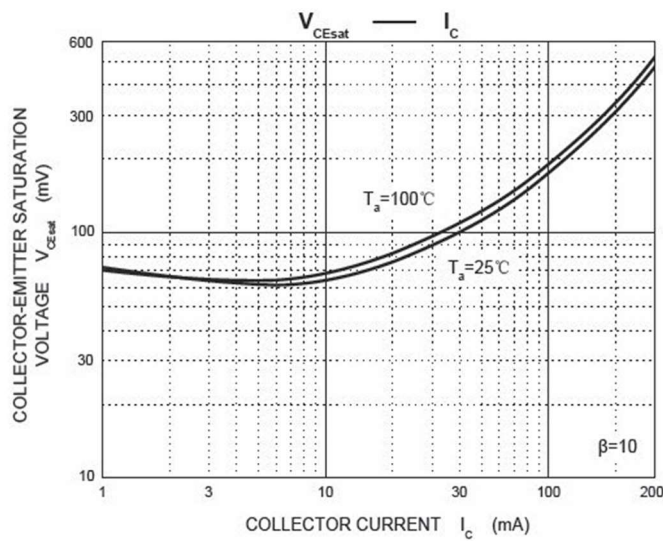
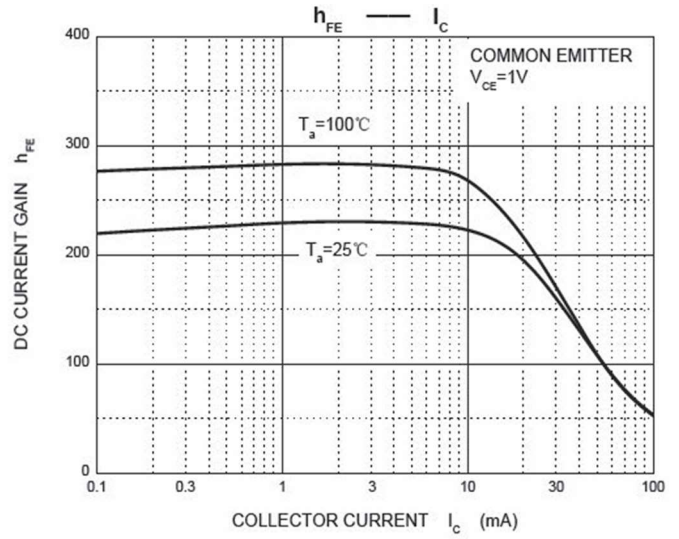
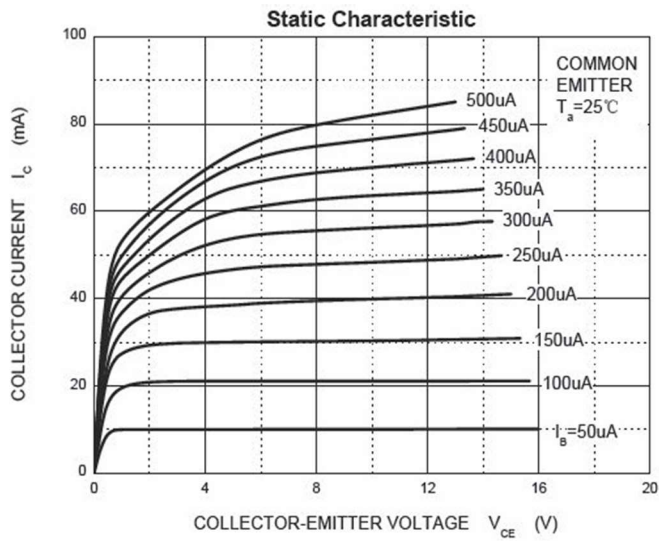
Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10μA, I _E =0	60		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	40		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0		100	nA
DC current gain	h _{FE(1)}	V _{CE} =1V, I _C =10mA	100	300	
	h _{FE(2)}	V _{CE} =1V, I _C =50mA	60		
	h _{FE(3)}	V _{CE} =1V, I _C =100mA	30		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =50mA, I _B =5mA		0.3	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =50mA, I _B =5mA		0.95	V
Transition frequency	f _T	V _{CE} =20V, I _C =10mA, f=100MHz	300		MHz

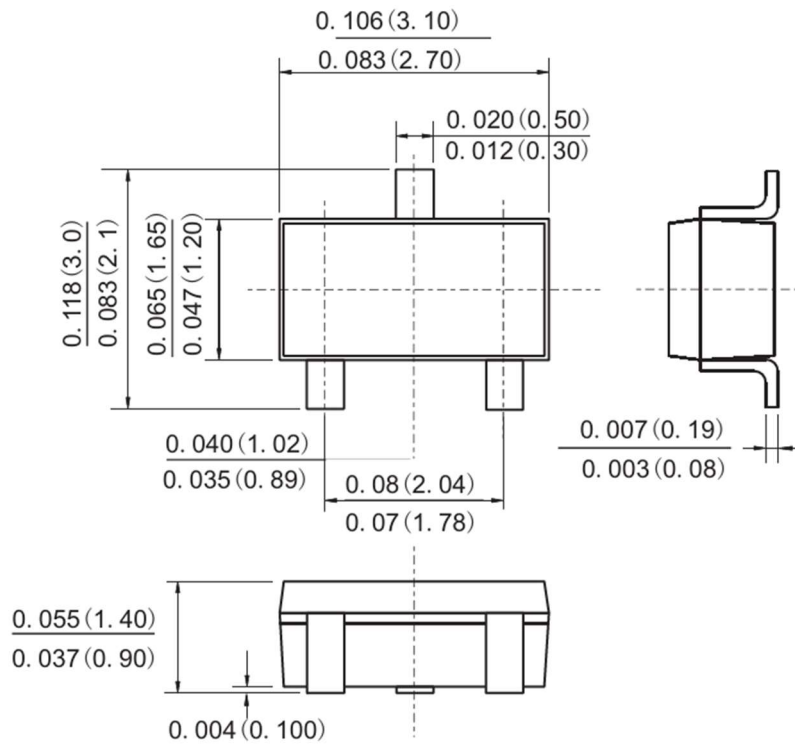
Classification of h_{FE(1)}

Rank	L	H
Range	100 - 200	200 - 300

Typical Characteristics

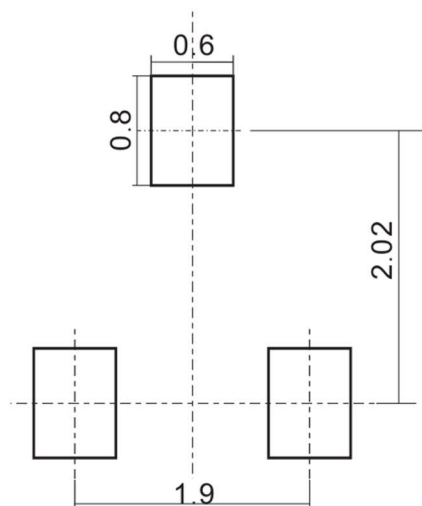


Package Outline Dimensions (Units: mm) SOT-23



Dimensions in inches and (millimeters)

Suggested pad layout



Dimensions in millimeters