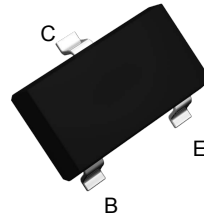
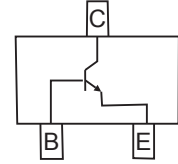


Features

- Epoxy meets UL-94V-0 flammability rating
- Power dissipation of 200mW
- High stability and high reliability



SOT-23



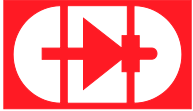
Schematic Diagram

Mechanical Data

- Case: SOT-23 small outline plastic package
- Mounting position: Any

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CE0}	25	V
Collector-Base Voltage	V_{CB0}	40	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current, Continuous	I_C	800	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Operation Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$



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

Parameter	Symbols	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	40	-	V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	25	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	6	-	V
Collector Cut-off Current	I _{CBO}	V _{CB} =35V, I _E =0	-	100	nA
Collector Cut-off Current	I _{CEO}	V _{CE} =20V, I _B =0	-	100	nA
DC Current Gain	h _{FE(1)}	V _{CE} =1V, I _C =5mA	45	-	-
	h _{FE(2)}	V _{CE} =1V, I _C =100mA	80	400	
	h _{FE(3)}	V _{CE} =1V, I _C =800mA	40	-	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =800mA, I _B =80mA	-	0.50	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =800mA, I _B =80mA	-	1.20	V
Transition Frequency	f _T	V _{CE} =6V, I _C =20mA, F=30MHz	150	-	MHz

Typical Characteristic Curves

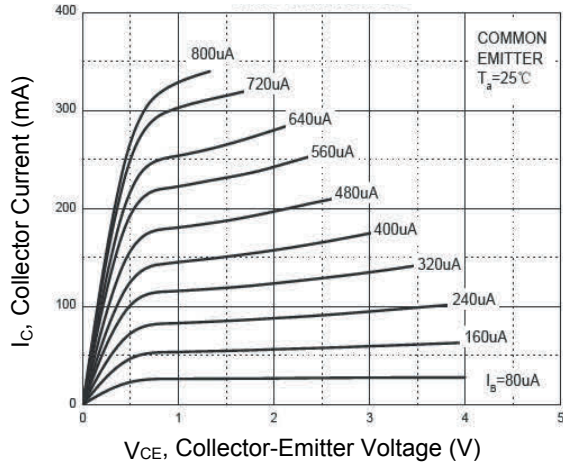


Figure 1. Static Characteristic

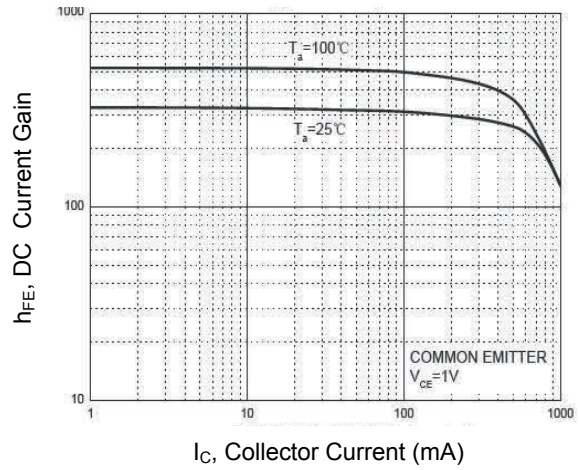


Figure 2. DC Current Gain vs. Collector Current

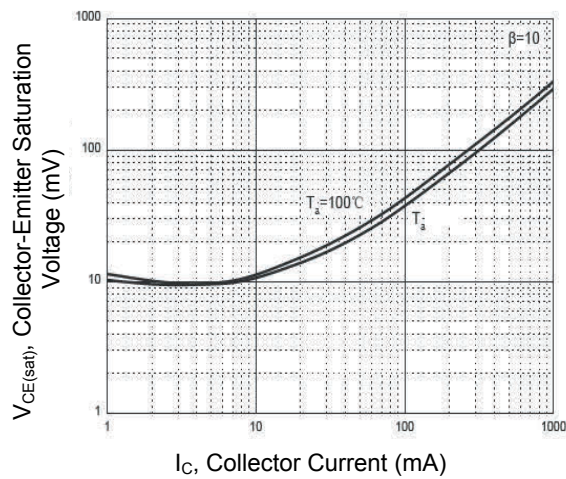


Figure 3. Collector-Emitter Saturation Voltage vs. Collector Current

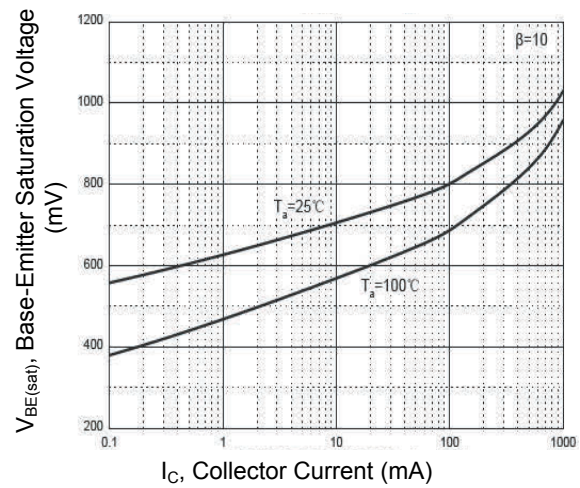


Figure 4. Base-Emitter Saturation Voltage vs. Collector Current

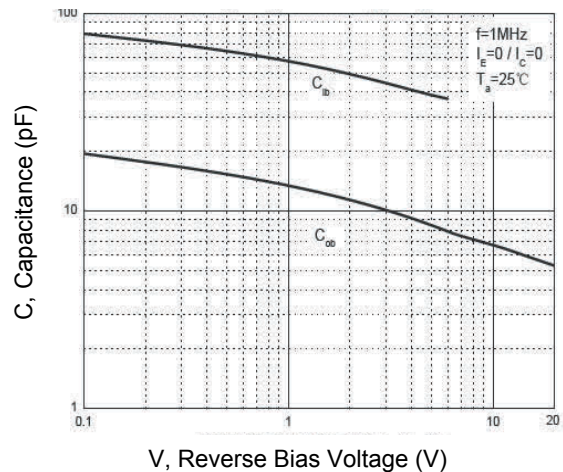


Figure 5. Capacitance Characteristics

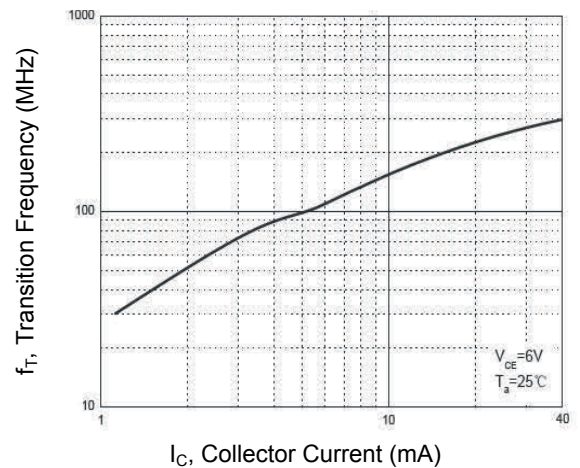


Figure 6. Transition Frequency vs. Collector Current

Typical Characteristic Curves

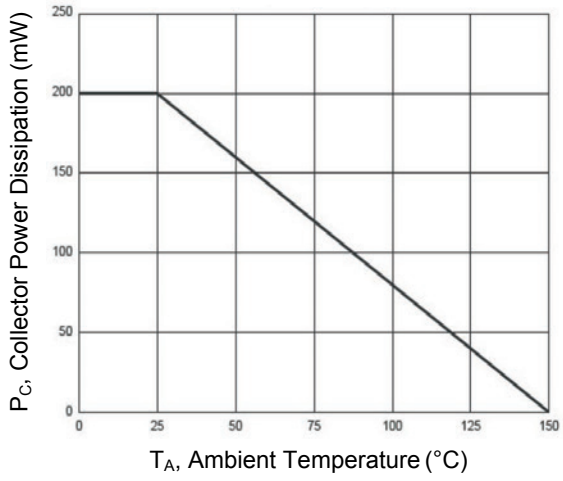
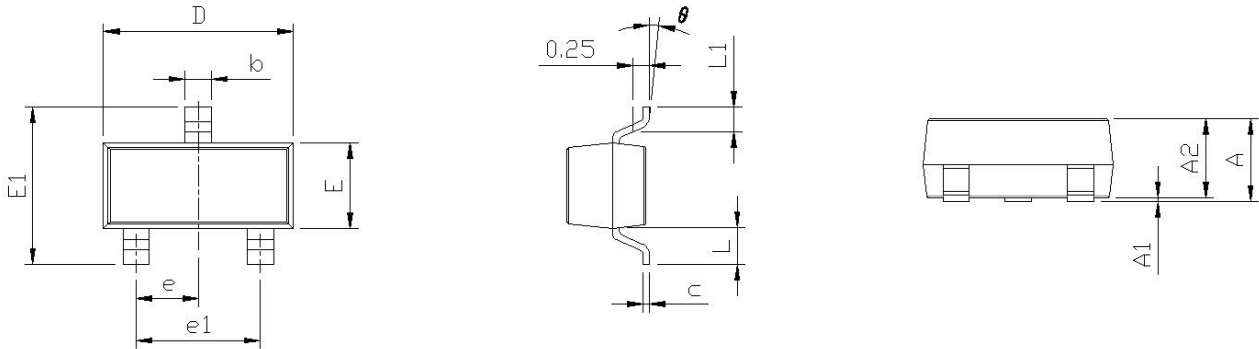


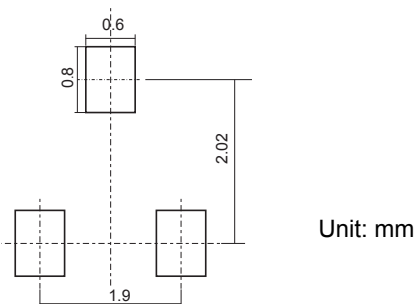
Figure 7. Power Dissipation vs. Ambient Temperature

Package Outline Dimensions (SOT-23)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.120
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Recommended Pad Layout



Order Information

Device	Package	Marking	Packaging	SPQ
GS8050M	SOT-23	Y11	Tape & Reel	3,000 Pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com