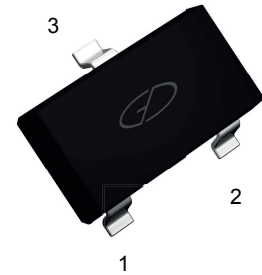
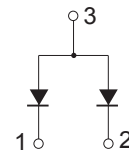


Features

- Epoxy meets UL 94 V-0 flammability rating
- Small outline surface mount package
- Low current leakage
- For high-speed switching applications



SOT-323



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

Parameter	Symbol	Value	Units
Reverse Voltage	V_R	75	V
Forward Current	I_F	150	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Schematic Diagram

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}$	75	-	-	V
Reverse Voltage Leakage Current	I_R	$V_R=75\text{V}$	-	-	2.5	μA
		$V_R=20\text{V}$	-	-	25	nA
Forward Voltage	V_F	$I_F=1\text{mA}$	-	-	715	mV
		$I_F=10\text{mA}$	-	-	855	
		$I_F=50\text{mA}$	-	-	1000	
		$I_F=150\text{mA}$	-	-	1250	
Diode Capacitance	C_D	$V_R=0\text{V}, F=1\text{MHz}$	-	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$	-	-	4	nS

Typical Characteristic Curves

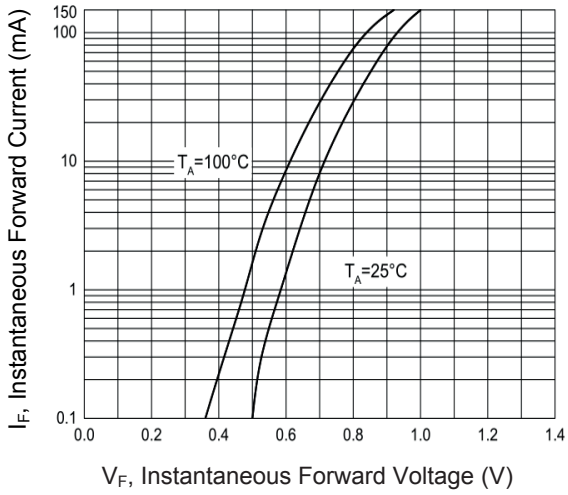


Figure 1. Typical Instantaneous Forward Characteristics

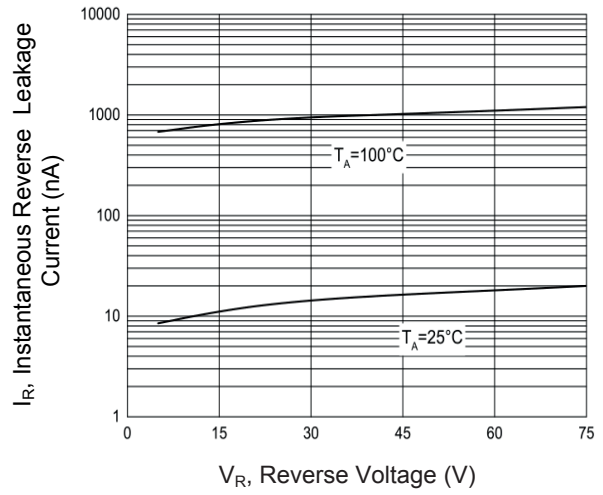


Figure 2. Typical Reverse Leakage Characteristics

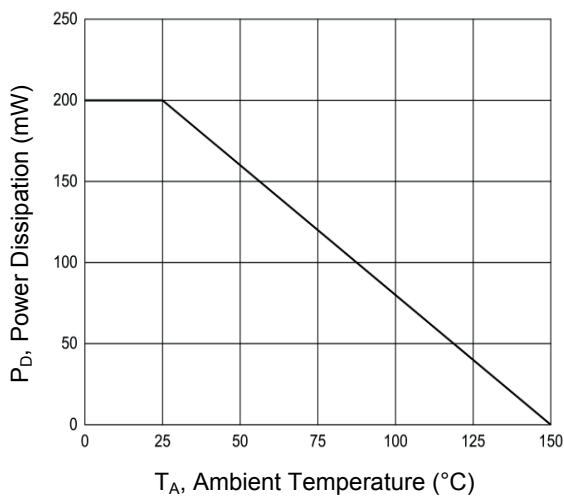
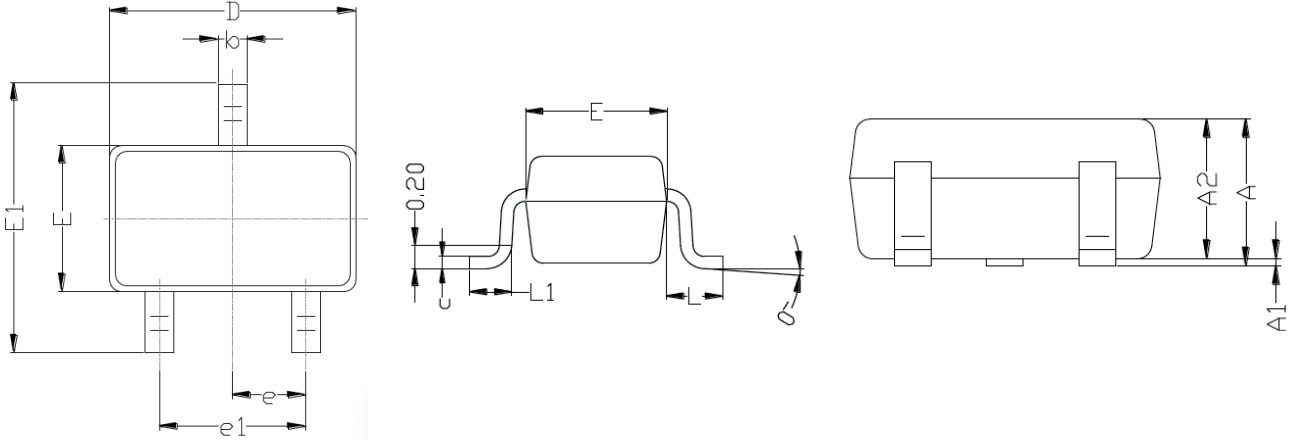


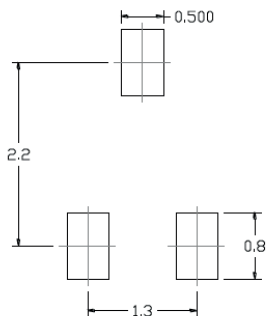
Figure 3. Power Derating Curve

Package Outline Dimensions (SOT-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.00	0.035	0.039
A1	0.00	0.10	0.000	0.004
A2	0.90	1.00	0.035	0.039
b	0.20	0.40	0.008	0.016
c	0.08	0.15	0.003	0.006
D	2.00	2.20	0.079	0.087
E	1.15	1.35	0.045	0.053
E1	2.15	2.45	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.20	1.40	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.26	0.46	0.010	0.018
θ	0°	8°	0°	8°

Recommended 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

Order Information

Device	Package	Marking	Carrier	Quantity
GSBAW56W	SOT-323	KJC	Tape & Reel	3,000 pcs / 7" Reel