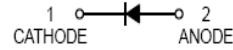


Features

- Fast switching speed
- High reverse breakdown voltage
- Low leakage current



Schematic Diagram

SOD-123

Mechanical Data

- Case: SOD-123
- Molding Compound: UL flammability classification rating 94V-0
- Terminals: matte tin-plated leads; solderability-per MIL-STD-202, method 208

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	350	V
Working Peak Reverse Voltage	V_{RWM}	300	V
DC Blocking Voltage	V_R	300	V
RMS Reverse Voltage	$V_{R(RMS)}$	212	V
Forward Continuous Current	I_F	225	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Peak Forward Surge Current, 1 μ s Single Half-Sine-Wave	I_{FSM}	4	A
Peak Forward Surge Current, 1s Single Half-Sine-Wave	I_{FSM}	1	A
Power Dissipation	P_D	400	mW
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	312	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-65 to 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to 150	$^\circ\text{C}$

Typical Electrical and Thermal Characteristic Curves

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=150\mu\text{A}$	350	-	-	V
Forward Voltage	V_F	$I_F=20\text{mA}$	-	0.78	0.87	V
		$I_F=100\text{mA}$	-	0.93	1.00	V
		$I_F=200\text{mA}$	-	1.03	1.25	V
Maximum Peak Reverse Current	I_R	$V_R=240\text{V}, T_J=25^\circ\text{C}$	-	30	100	nA
		$V_R=240\text{V}, T_J=150^\circ\text{C}$	-	35	100	μA
Total Capacitance	C_J	$V_R=0\text{V}, F=1.0\text{MHz}$	-	1	5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$	-	-	50	ns

Typical Electrical Characteristic Curves

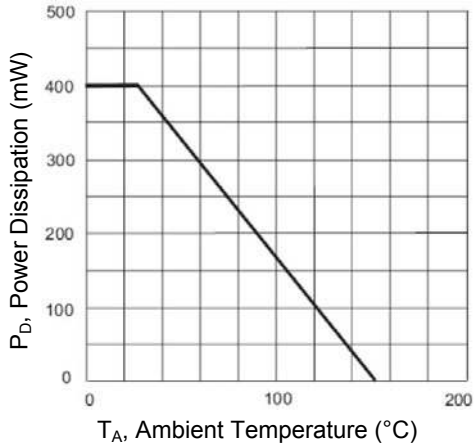


Figure 1. Power Derating Curve

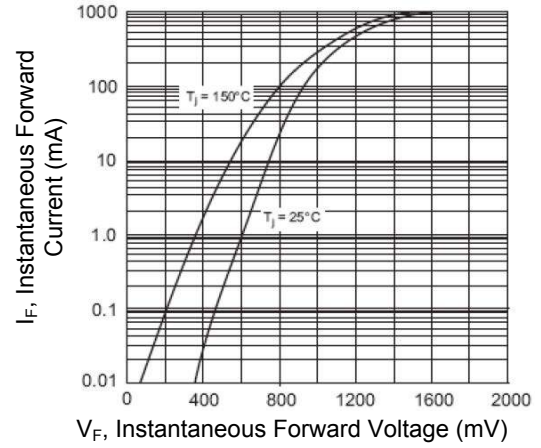


Figure 2. Typical Forward Characteristics

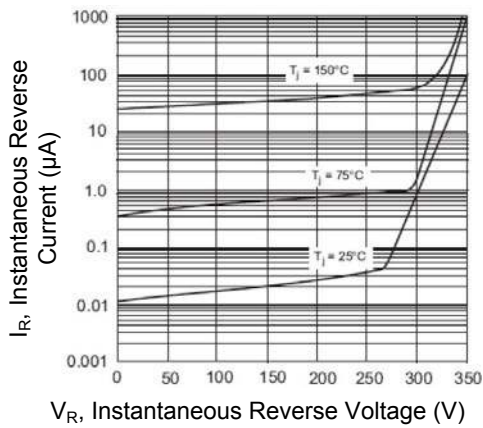


Figure 3. Typical Reverse Characteristics

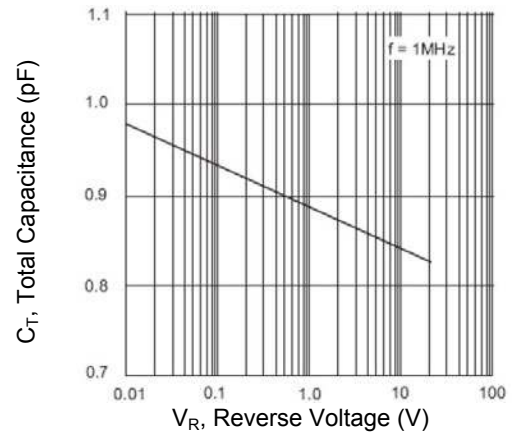
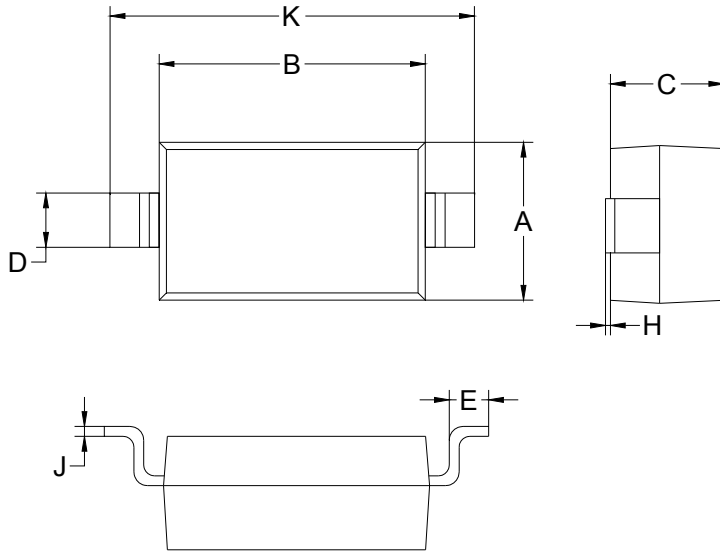


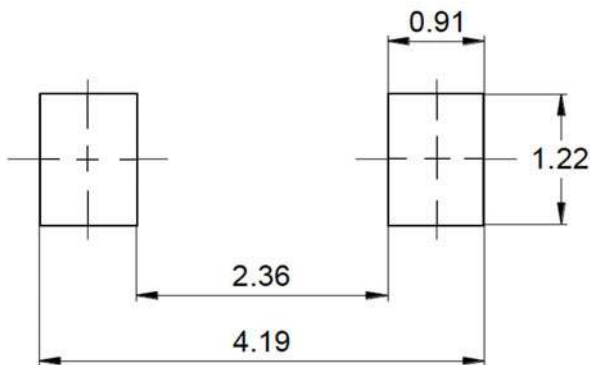
Figure 4. Typical Total Capacitance vs. Reverse Voltage

Package Outline Dimensions SOD-123



Symbol	Dimensions in Millimeters	
	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

Recommended Pad Layout Unit: mm



Ordering Information

Device	Package	Marking	Quantity	HSF Status
GSBAV3004W	SOD-123	4P	3000 pcs / Reel	RoHS Compliant