

RoHS
Compliant



Features

- Low leakage current
- High reverse breakdown voltage
- Fast switching speed
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Application

- Surface mount fast switching diode.

Maximum Rating @ TA = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	VRRM	350	V
Working Peak Reverse Voltage	VRWM	300	V
DC Reverse Voltage	VR		
RMS Reverse Voltage	VR(RMS)	212	V
Forward Continuous Current	IF	225	mA
Repetitive Peak Forward Current	IFRM	625	mA
Non-Repetitive Peak Forward Surge Current @t=1μs @t=1s	IFSM	4 1	A
Power Dissipation	PD	400	mW
Thermal Resistance Junction to Ambient Air	RθJA	312	°C/W
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150	°C

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation	Pd	400	mW
Thermal Resistance Junction-to-Air *1	RθJA	270	°C/W
Thermal Resistance Junction-to-Case *1	RθJC	170	
Thermal Resistance Junction-to-Lead *1	RθJL	190	
Operating Junction Temperature Range	TJ	-65 to +150	
Storage Temperature Range	TSTG		°C

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 20Z copper

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

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Surface Mount Low Leakage Diode **multicomp**PRO

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

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

Ratings and Characteristics Curves @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Fig 1. Typical Reverse Characteristic

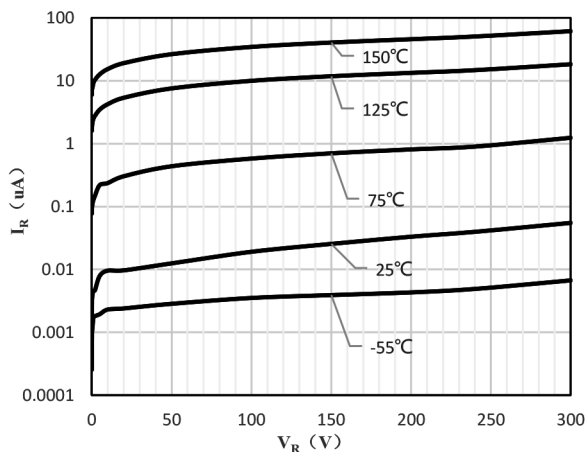


Fig 2. Typical Forward Characteristics

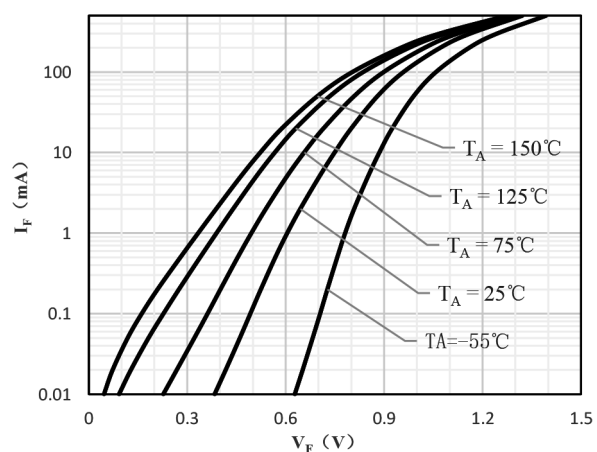


Fig 3. Capacitance vs. Reverse Voltage

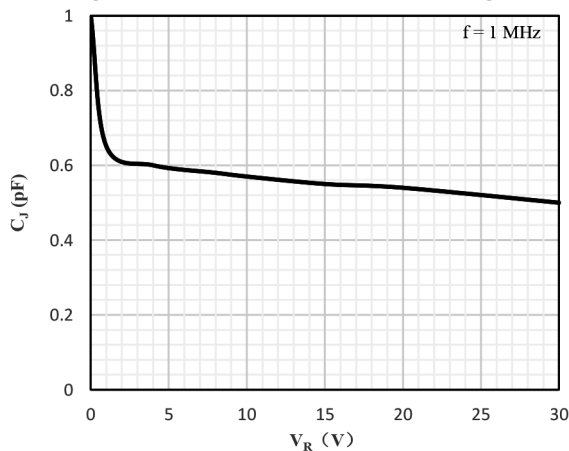
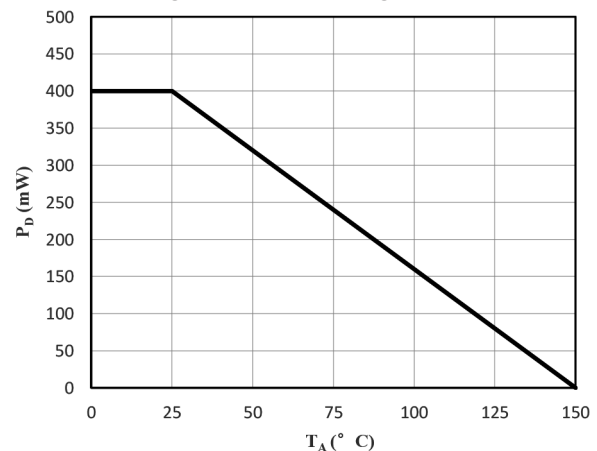
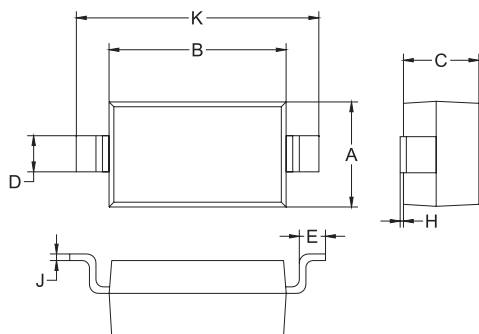


Fig 4. Power Derating Curve

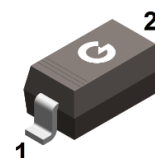
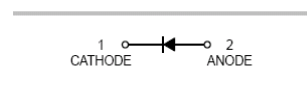


Package Outline

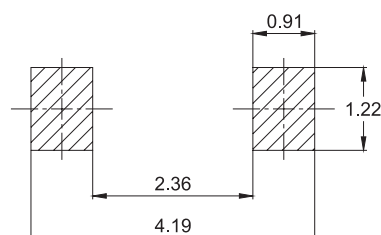
Plastic surface mounted package



SOD-123		
Dim.	Min.	Max.
A	1.45	1.75
B	2.55	2.85
C	1	1.3
D	0.5	0.6
E	0.25	0.45
H	0.02	0.1
J	0.05	0.15
K	3.55	3.85



Soldering Footprint



Part Number Table

Description	Part Number
Signal Diode, Single, 350V, 225mA, 1.25V	BAV3004W-7-F

Dimensions : Millimetres

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