

Switching Diodes

410mW SOD-123

BAV3004W

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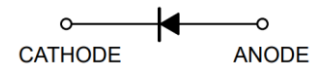
FEATURE

- Power Dissipation: 410mW
- 350V Peak Reverse Voltage
- 200mA Forward Continuous Current
- Fast Switching Speed
- High Conductance
- High Reverse Breakdown Voltage Rating



MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD, Method 2026
- Polarity: Color Band Denotes Cathode End



MAXIMUM RATING



Parameter	Symbol	Value	Units	
Repetitive Peak Reverse Voltage	V_{RRM}	350	V	
RMS Reverse Voltage	$V_{R(RMS)}$	240	V	
Forward Continuous Current	I_F	200	mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	$t=1.0\mu s$	4.0	A
		$t=1.0s$	1.0	A
Power Dissipation	P_D	410	mW	
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}C/W$	
Operating and Storage Temperature Range	T_J, T_{STG}	-65~150	$^{\circ}C$	

ELECTRICAL CHARACTERISTICS

Parameter	Test Condition	Symbol	Min	Typ	Max	Units
Reverse Breakdown Voltage	$I_R=150\mu A$	V_{BR}	350	-	-	V
Forward Voltage	$I_F=20mA$	V_F	-	0.78	0.87	V
	$I_F=100mA$		-	0.93	1.00	V
	$I_F=200mA$		-	1.03	1.25	V
Reverse Current	$V_R=240V$	I_R	-	30	100	nA
	$V_R=240V, T_J=150^{\circ}C$		-	35	100	μA
Total Capacitance	$V_R=0V, F=1MHz$	C_T	-	1.0	5.0	pF
Reverse Recovery Time	$I_F=I_R=30mA$ $I_{rr}=3.0mA, R_L=100\Omega$	T_{RR}	-	-	50	ns

Note:

1. $T_A = 25^{\circ}C$ unless otherwise specified.
2. Part mounted on FR-4 board with recommended pad layout.

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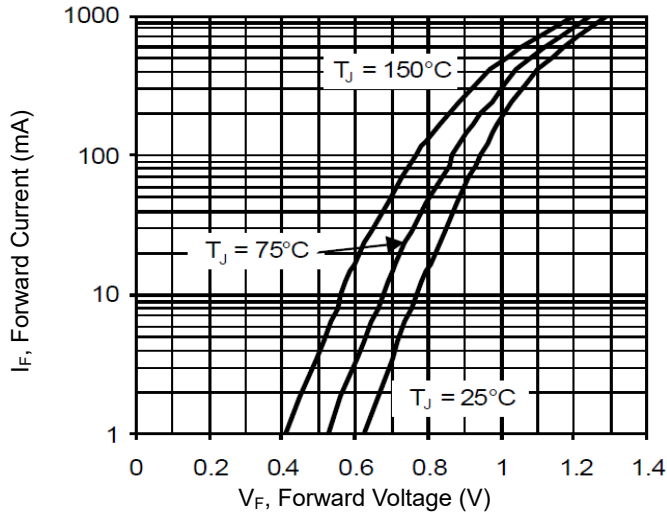
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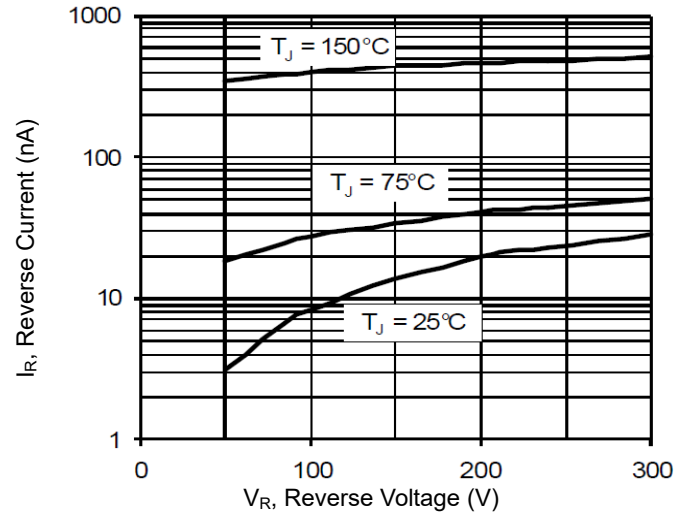
3. Short duration pulse test used to minimize self-heating effect.

CHARACTERISTIC CURVES

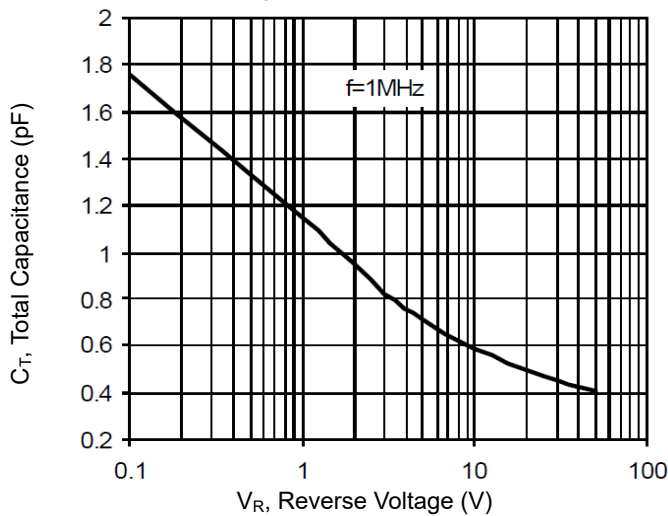
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Capacitance



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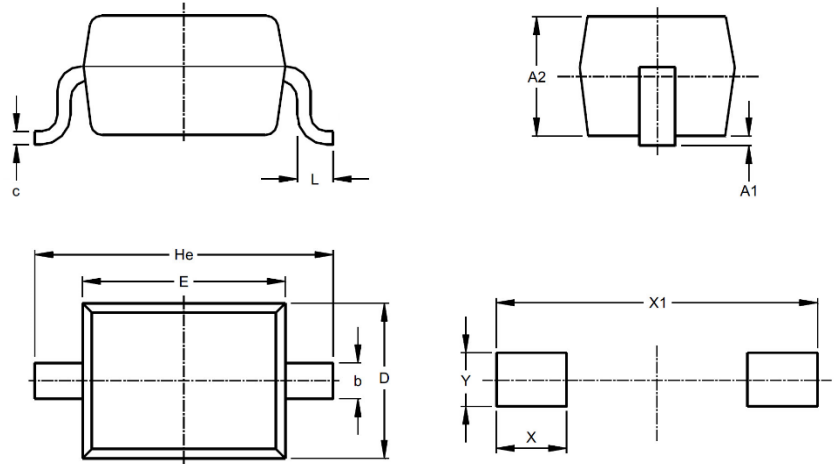
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DIMENSIONS

SOD-123	Min (mm)	Max (mm)
A1	-	0.12
A2	0.95	1.35
b	0.50	0.70
C	-	0.20
D	1.40	1.80
E	2.50	2.80
He	3.60	3.90
L	0.40	-
X	0.97	
X1	4.25	
Y	1.22	



*Specifications subject to change without notice.