

BAV3004W

HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE

VOLTAGE

350 Volts

POWER

410 mWatts
SOD-123

Unit: inch (mm)

FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- High Conductance
- High Reverse Breakdown Voltage Rating
- In compliance with EU RoHS 2002/95/EC directives

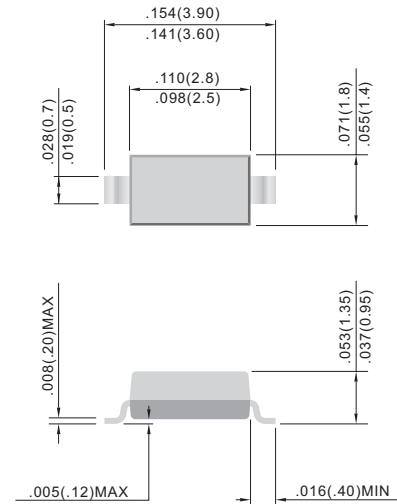
MECHANICAL DATA

Case: SOD-123, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.0102 grams

Marking: 34W



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$, unless otherwise specified)

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	350	V
RMS Reverse Voltage	$V_{R(RMS)}$	240	V
Forward Continuous Current (Note 1)	I_F	200	mA
Non-Repetitive Peak Forward Surge Current @ $t=1.0\mu\text{s}$ @ $t=1.0\text{s}$	I_{FSM}	4.0 1.0	A
Power Dissipation (Note 1)	P_d	410	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 150	$^{\circ}\text{C}$

Notes : 1. Part mounted on FR-4 board with recommended pad layout.

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ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$, unless otherwise specified, per element)

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Reverse Breakdown Voltage (Note 2)	V_{BR}	350	-	-	V	$I_R=150\mu\text{A}$
Forward Voltage (Note 2)	V_F	-	0.78 0.93 1.03	0.87 1.0 1.25	V	$I_F=20\text{mA}$ $I_F=100\text{mA}$ $I_F=200\text{mA}$
Reverse Current (Note 2)	I_R	-	30 35	100 100	nA μA	$V_R=240\text{V}$ $V_R=240\text{V}, T_J=150^{\circ}\text{C}$
Total Capacitance	C_T	-	1.0	5.0	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	-	50	ns	$I_F=I_R=30\text{mA}$ $I_{rr}=3.0\text{mA}, R_L=100\Omega$

Notes : 2. Short duration test pulse used to minimize self-heating effect

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ELECTRICAL CHARACTERISTICS CURVES

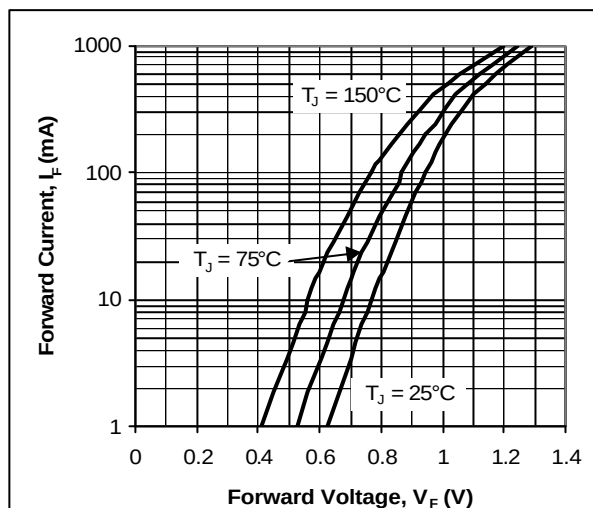


Fig. 1. Typical Forward

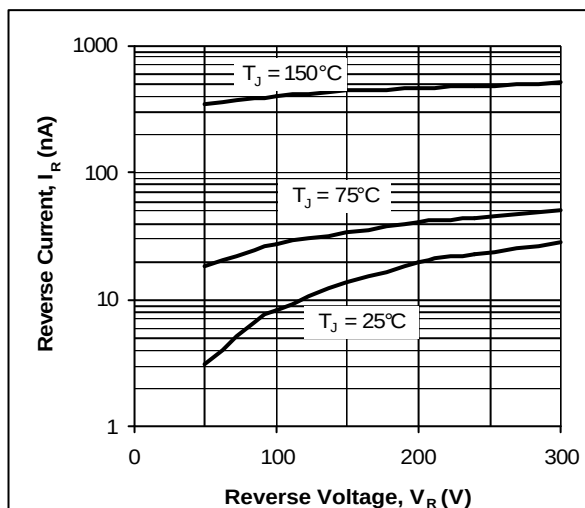


Fig. 2. Typical Reverse

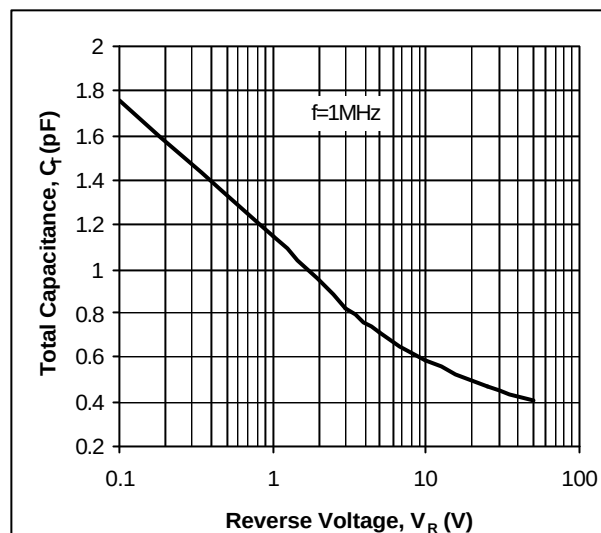


Fig. 3. Typical Capacitance