



# 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
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

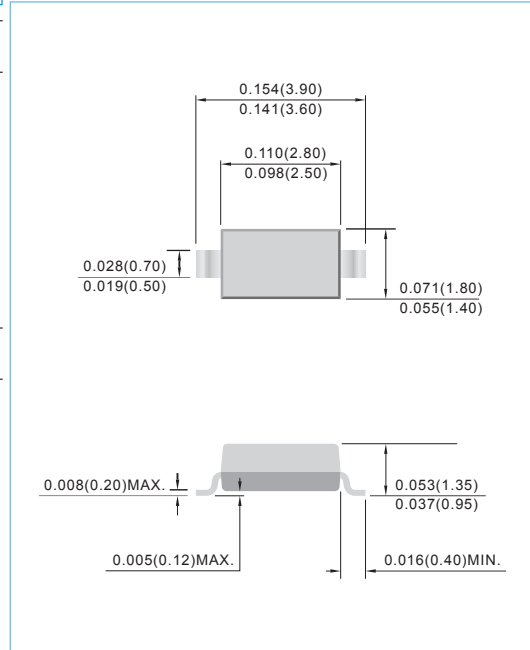
### MECHANICAL DATA

Case: SOD-123, Plastic

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

Approx. Weight: 0.0103 grams

Marking: 34W



### MAXIMUM RATINGS(T<sub>A</sub>=25°C, unless otherwise specified)

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	350	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	240	V
Forward Continuous Current (Note 1)	I <sub>F</sub>	200	mA
Non-Repetitive Peak Forward Surge Current @ t=1.0μs @ t=1.0s	I <sub>FSM</sub>	4.0 1.0	A
Power Dissipation (Note 1)	P <sub>d</sub>	410	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>ΘJA</sub>	500	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 150	°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)

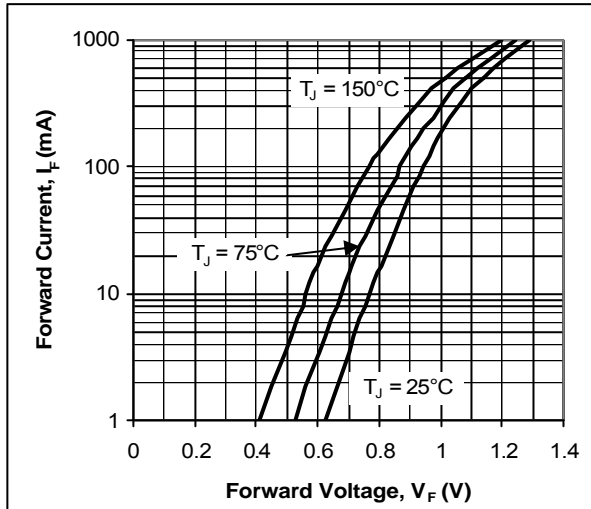
CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Reverse Breakdown Voltage (Note 2)	$V_{BR}$	350	-	-	V	$I_R=150\mu\text{A}$
Forward Voltage (Note 2)	$V_F$	-	0.78 0.93 1.03	0.87 1.0 1.25	V	$I_F=20\text{mA}$ $I_F=100\text{mA}$ $I_F=200\text{mA}$
Reverse Current (Note 2)	$I_R$	-	30 35	100 100	nA $\mu\text{A}$	$V_R=240\text{V}$ $V_R=240\text{V}, T_J=150^{\circ}\text{C}$
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

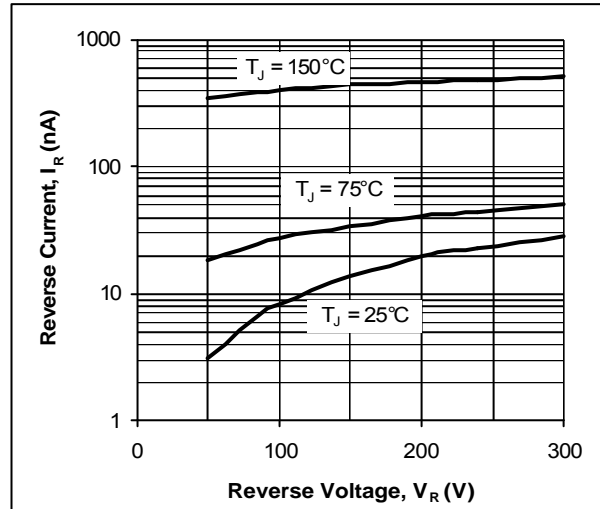


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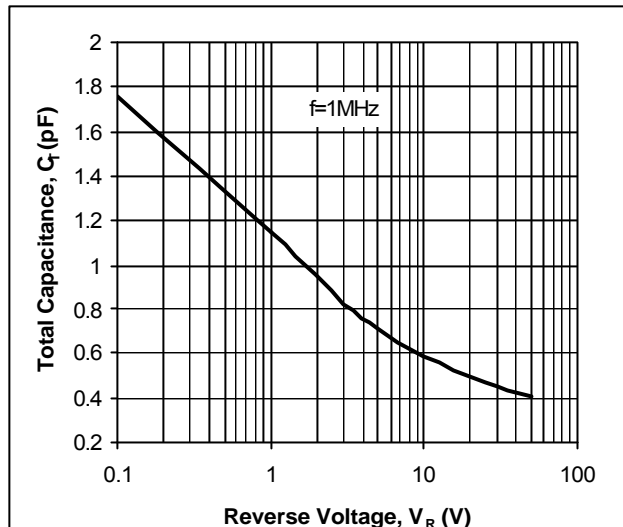
## ELECTRICAL CHARACTERISTICS CURVES



**Fig. 1. Typical Forward**



**Fig. 2. Typical Reverse**

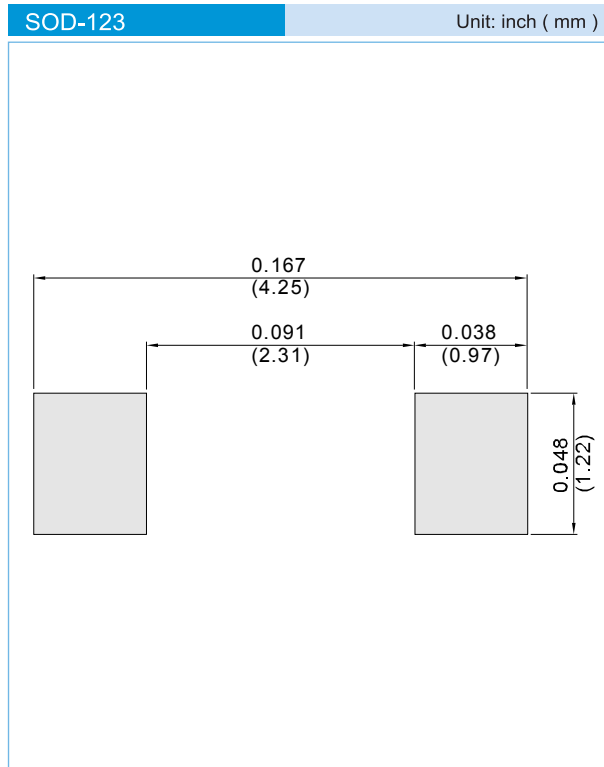


**Fig. 3. Typical Capacitance**



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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel



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## Part No\_packing code\_Version

BAV3004W\_R1\_00001

BAV3004W\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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