



### HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE

#### SOD-123 Unit: inch (mm) POWER 350 Volt 410 mWatt VOLTAGE **FEATURES** 0.154(3.90) · Fast Switching Speed 0.141(3.60) · Surface Mount Package Ideally Suited for Automatic Insertion 0.110(2.80) · High Conductance 0.098(2.50) · High Reverse Breakdown Voltage Rating • Lead free in compliance with EU RoHS 2.0 • Green molding compound as per IEC 61249 standard 0.028(0.70) 0.019(0.50) 0.071(1.80) 0.055(1.40) **MECHANICAL DATA** Case: SOD-123, Plastic Terminals: Solderable per MIL-STD-750, Method 2026 Approx. Weight: 0.0103 grams 0.053(1.35) 0.037(0.95) 0.008(0.20)MAX. <u>1</u> Marking: 34W 0.005(0.12)MAX 0.016(0.40)MIN.

#### MAXIMUM RATINGS(TA=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)	l <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	Α
Power Dissipation (Note 1)	Pd	410	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>eJA</sub>	500	∘C/W
Operating and Storage Temperature Range	$T_{J_i}T_{STG}$	-65 to + 150	∘C

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





### ELECTRICAL CHARACTERISTICS(Ta=25°C,unless otherwise specified,per element)

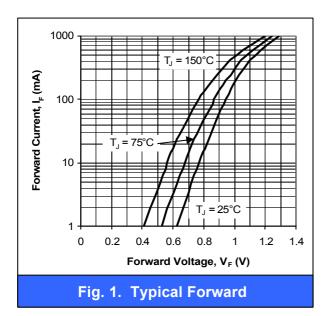
CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Reverse Breakdown Voltage (Note 2)	V <sub>BR</sub>	350	-	-	V	I R=150μA
Forward Voltage (Note 2)	V <sub>F</sub>	-	0.78 0.93 1.03	0.87 1.0 1.25	V	F=20mA   F=100mA   F=200mA
Reverse Current (Note 2)	IR	-	30 35	100 100	nA μA	V <sub>R</sub> =240V V <sub>R</sub> =240V,T <sub>J</sub> =150 °C
Total Capacitance	Ст	-	1.0	5.0	pF	V <sub>R</sub> =0V,f=1.0MHz
Reverse Recovery Time	trr	-	-	50	ns	I F=I R=30mA Irr=3.0mA,R <sub>L</sub> =100Ω

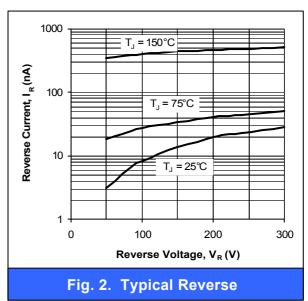
Notes: 2. Short duration test pulse used to minimize self-heating effect





### **ELECTRICAL CHARACTERISTICS CURVES**





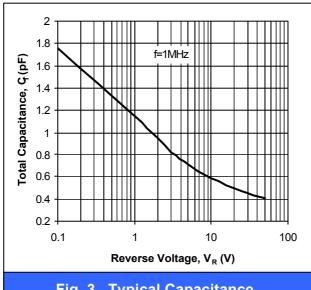
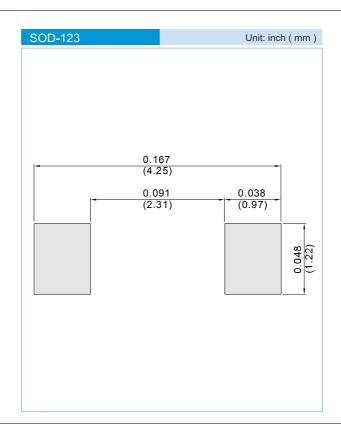


Fig. 3. Typical Capacitance





#### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

• Packing information

T/R - 10K per 13" plastic Reel

T/R - 3K per 7" plastic Reel





## Part No\_packing code\_Version

BAV3004W\_R1\_00001 BAV3004W\_R2\_00001

### For example:



Packing Code XX			Version Code XXXXX			
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)	Α	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	В	13"	2			
Tube Packing (T/P)	Т	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			





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