



# BAV19W THRU BAV21W

## Surface Mount Switching Diode



Voltage Range  
100/150/200 Volts  
250m Watts Power Dissipation

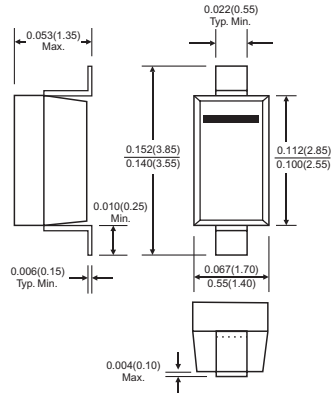
### Features

- ✧ Fast switching speed
- ✧ Surface mount package ideally suited for automatic insertion
- ✧ For general purpose switching applications

### Mechanical Data

- ✧ Case: SOD-123, Molded plastic
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Polarity: Cathode Band
- ✧ Marking: Date Code and Type Code or Date Code only
- ✧ Type Code: BAV19W A8  
BAV20W T2  
BAV21W T3
- ✧ Weight: 0.01 grams (approx.)

### SOD-123



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

#### Maximum Ratings

Type Number	Symbol	BAV19W	BAV20W	BAV21W	Units
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	120	200	250	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	150	200	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	106	141	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	400			mA
Average Rectifier Output Current (Note 1)	I <sub>o</sub>	200			mA
Non-Repetitive Peak Forward Surge Current @ t=1.0uS @ t=1.0S	I <sub>FSM</sub>	2.5 0.5			A
Repetitive Peak Forward Surge Current	I <sub>FRM</sub>	625			mA
Power Dissipation (Note 1)	P <sub>d</sub>	250			mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	500			K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 150			°C

#### Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Forward Voltage (Note 3) I <sub>F</sub> =100mA I <sub>F</sub> =200mA	V <sub>F</sub>	—	1.0 1.25	V
Peak Reverse Current (Note 3) T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	—	100 15	nA uA
Junction Capacitance V <sub>R</sub> =0, f=1.0MHz	C <sub>j</sub>	—	5.0	pF
Reverse Recovery Time (Note 2)	t <sub>rr</sub>	—	50	nS

- Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.  
2. Reverse Recovery Test Conditions: I<sub>F</sub>=I<sub>R</sub>=10mA, I<sub>rr</sub>=0.1 x I<sub>R</sub>, R<sub>L</sub>=100Ω.  
3. Short Duration Pulse Test used to Minimize Self-Heating Effect.

## RATINGS AND CHARACTERISTIC CURVES (BAV19W THRU BAV21W)

FIG.1- FORWARD CHARACTERISTICS

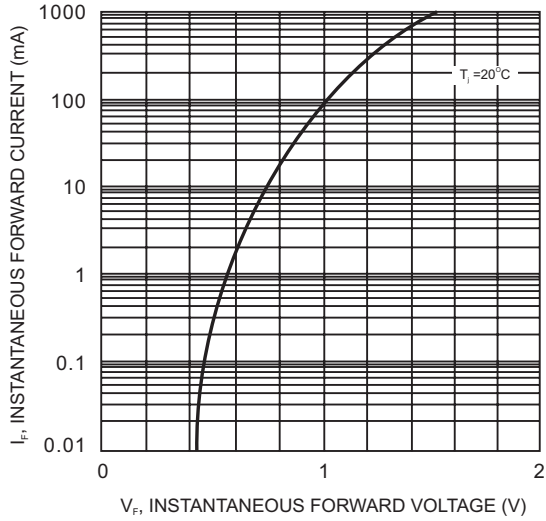


FIG.2- LEAKAGE CURRENT VS JUNCTION TEMPERATURE

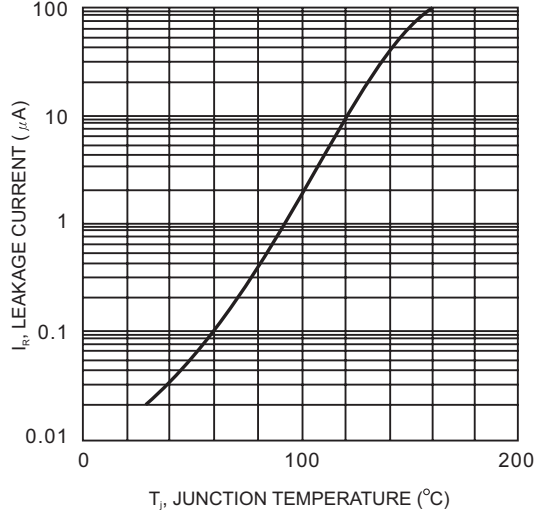


FIG.3- ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE

