



BAV19W THRU BAV21W

Surface Mount Switching Diode



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

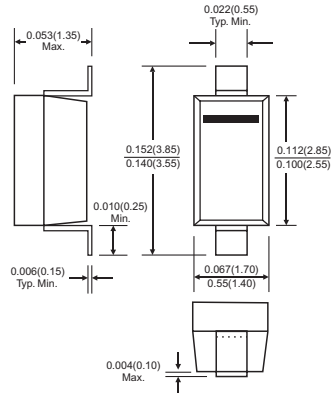
Features

- ✧ 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 _{RRM}	120	200	250	V
Working Peak Reverse Voltage	V _{RWM}	100	150	200	V
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	71	106	141	V
Forward Continuous Current (Note 1)	I _{FM}	400			mA
Average Rectifier Output Current (Note 1)	I _o	200			mA
Non-Repetitive Peak Forward Surge Current @ t=1.0uS @ t=1.0S	I _{FSM}	2.5 0.5			A
Repetitive Peak Forward Surge Current	I _{FRM}	625			mA
Power Dissipation (Note 1)	P _d	250			mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	500			K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150			°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Forward Voltage (Note 3) IF=100mA IF=200mA	V _F	—	1.0 1.25	V
Peak Reverse Current (Note 3) T _J =25°C T _J =100°C	I _R	—	100 15	nA uA
Junction Capacitance V _R =0, f=1.0MHz	C _j	—	5.0	pF
Reverse Recovery Time (Note 2)	t _{rr}	—	50	nS

Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.

2. Reverse Recovery Test Conditions: I_F=I_R=10mA, I_{rr}=0.1 x I_R, R_L=100Ω.

3. Short Duration Pulse Test used to Minimize Self-Heating Effect.

RATINGS AND CHARACTERISTIC CURVES (BAV19W THRU BAV21W)

FIG.1- FORWARD CHARACTERISTICS

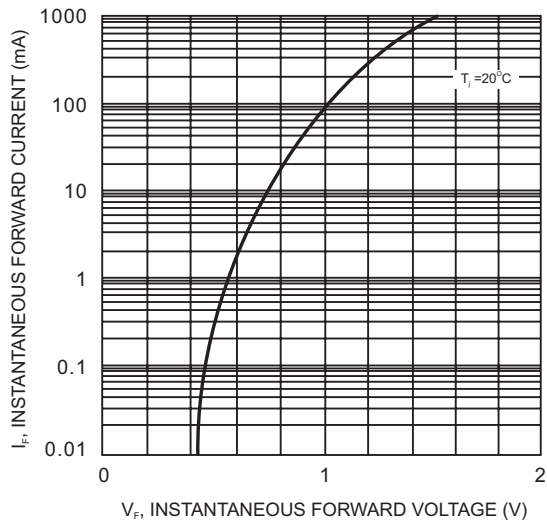


FIG.2- LEAKAGE CURRENT VS JUNCTION TEMPERATURE

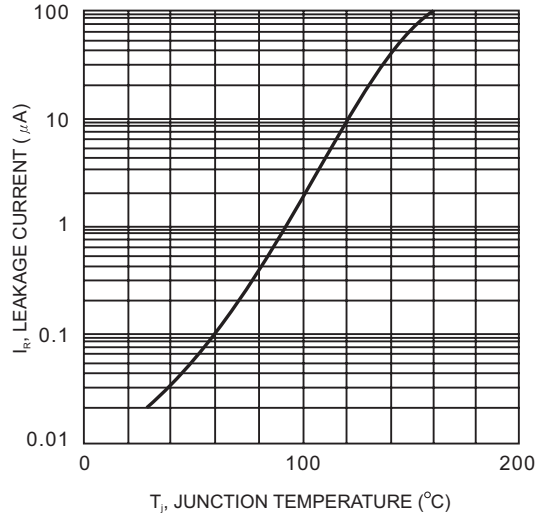


FIG.3- ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE

