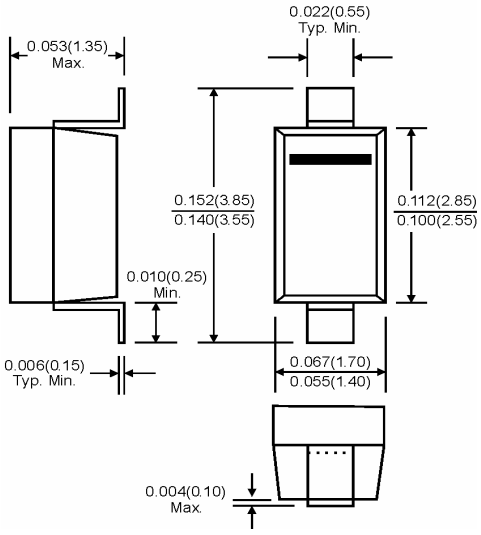
BAV19W - BAV21W

250mW Surface Mount Switching Diode

SOD-123



Dimensions in inches and (millimeters)

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 MIIL-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.)

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 DC Blocking Voltage	V_{RWM} V_R	100	150	200	V
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)	Io	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)	Pd	250			mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500			°C /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) Tj=25°C Tj=100°C	I_R	-	100 15	nA uA
Junction Capacitance VR=0, f=1.0MHz	Cj	-	5.0	pF
Reverse Recovery Time (Note 2)	trr	-	50	nS

Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.
2. Reverse Recovery Test Conditions: IF=IR=10mA, Irr=0.1 x IR, RL=100Ω.
3. Short Duration Pulse Test used to Minimize Self-Heating Effect.

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RATINGS AND CHARACTERISTIC CURVES (BAV19W THRU BAV21W)

FIG.1- FORWARD CHAPACTERISTICS

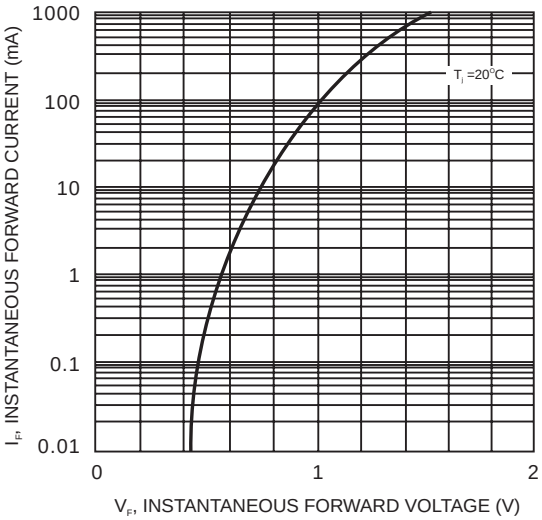

FIG.2- LEAKAGE CURRENT VS JUNCTION TEMPERATURE

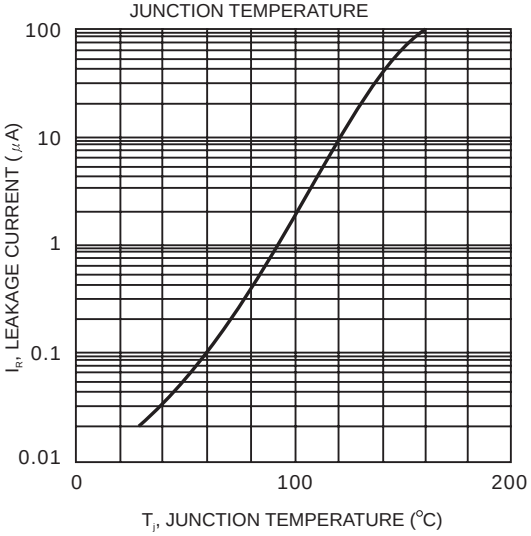

FIG.3- ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE