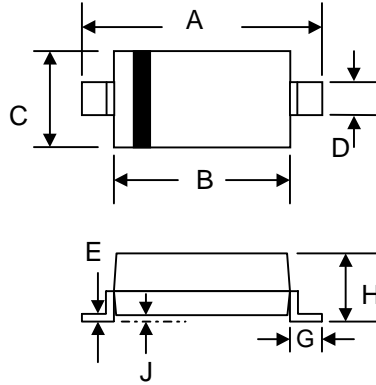


# BAV19W – BAV21W

## SURFACE MOUNT FAST SWITCHING DIODE

### Features

- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



SOD-123		
Dim	Min	Max
A	3.6	3.9
B	2.5	2.8
C	1.4	1.8
D	0.5	0.7
E	—	0.2
G	0.4	—
H	0.95	1.35
J	—	0.12
All Dimensions in mm		

### Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams (approx.)
- Marking: BAV19W    A8  
           BAV20W    A80  
           BAV21W    A82

### Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	120	200	250	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	150	200	V
Working Peak Reverse Voltage	$V_{RWM}$				
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{R(RMS)}$	70	105	140	V
Forward Continuous Current (Note 1)	$I_{FM}$	400			mA
Average Rectified Output Current (Note 1)	$I_O$	200			mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	2.5 0.5			A
Power Dissipation	$P_d$	410			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500			K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150			$^\circ\text{C}$

### Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Forward Voltage Drop @ $I_F = 100\text{mA}$	$V_{FM}$	1.0			V
Peak Reverse Leakage Current At Rated DC Blocking Voltage	$I_{RM}$	100	150	200	nA
Typical Junction Capacitance ( $V_R = 0\text{V DC}, f = 1.0\text{MHz}$ )	$C_j$	5.0			pF
Reverse Recovery Time (Note 2)	$t_{rr}$	50			nS

Note: 1. Valid provided that terminals are kept at ambient temperature.  
 2. Measured with  $I_F = I_R = 30\text{mA}$ ,  $I_{RR} = 0.1 \times I_R$ ,  $R_L = 100\Omega$ .

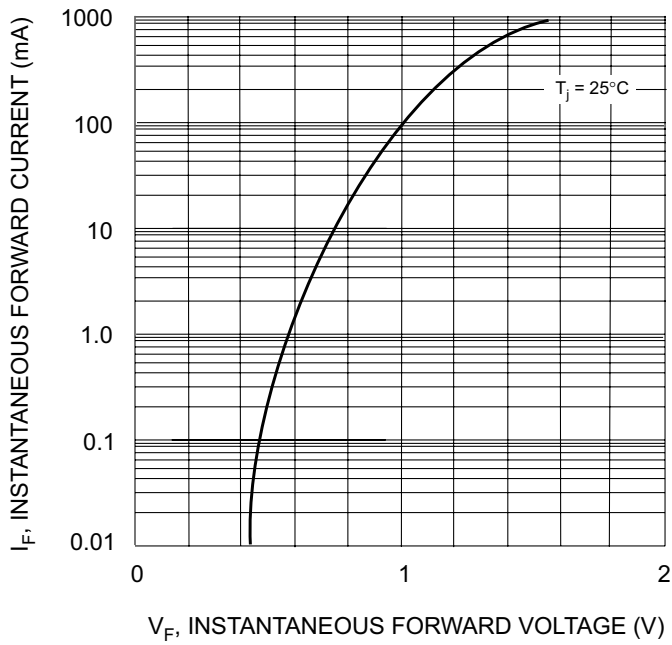


Fig. 1 Forward Characteristics

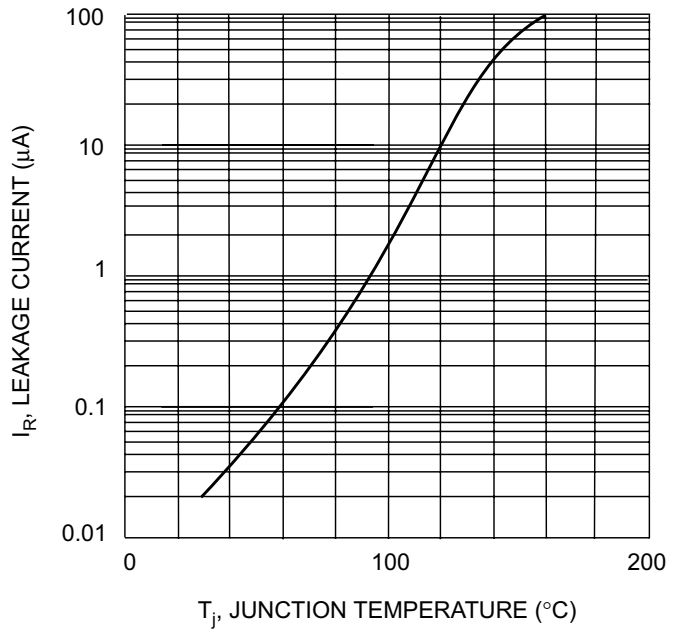


Fig. 2 Leakage Current vs Junction Temperature

## ORDERING INFORMATION

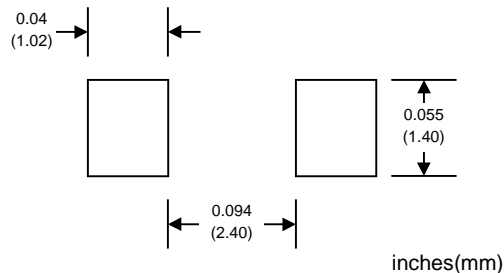
Product No.♦	Package Type	Shipping Quantity
<b>BAV19W-T1</b>	SOD-123	3000/Tape & Reel
BAV19W-T3	SOD-123	10000/Tape & Reel
<b>BAV20W-T1</b>	SOD-123	3000/Tape & Reel
BAV20W-T3	SOD-123	10000/Tape & Reel
<b>BAV21W-T1</b>	SOD-123	3000/Tape & Reel
BAV21W-T3	SOD-123	10000/Tape & Reel

Products listed in **bold** are WTE Preferred devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

*We power your everyday.*