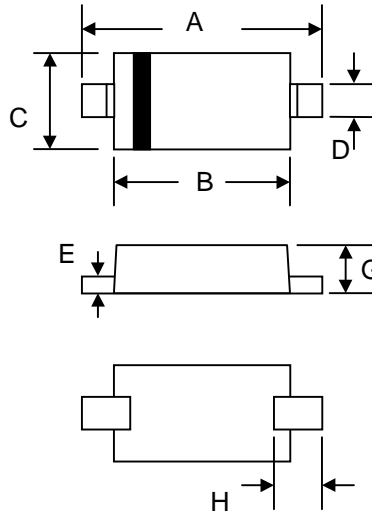


# BAS19WS – BAS21WS

## 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-323		
Dim	Min	Max
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

### Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)
- Marking: BAS19WS A8  
BAS20WS A80  
BAS21WS A82

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

Characteristic	Symbol	BAS19WS	BAS20WS	BAS21WS	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	120	200	250	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	105	140	V
Forward Continuous Current (Note 1)	$I_F$	400			mA
Average Rectified Output Current (Note 1)	$I_O$	200			mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$	$I_{FSM}$	2.5 0.5			A
Power Dissipation	$P_d$	200			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625			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	BAS19WS	BAS20WS	BAS21WS	Unit
Forward Voltage Drop @ $I_F = 100\text{mA}$	$V_{FM}$	1.0			V
Peak Reverse Leakage Current @ Rated DC Blocking Voltage	$I_{RM}$	100			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  $I_F = I_R = 30\text{mA}$ ,  $I_{RR} = 0.1 \times I_R$ ,  $R_L = 100\Omega$ .

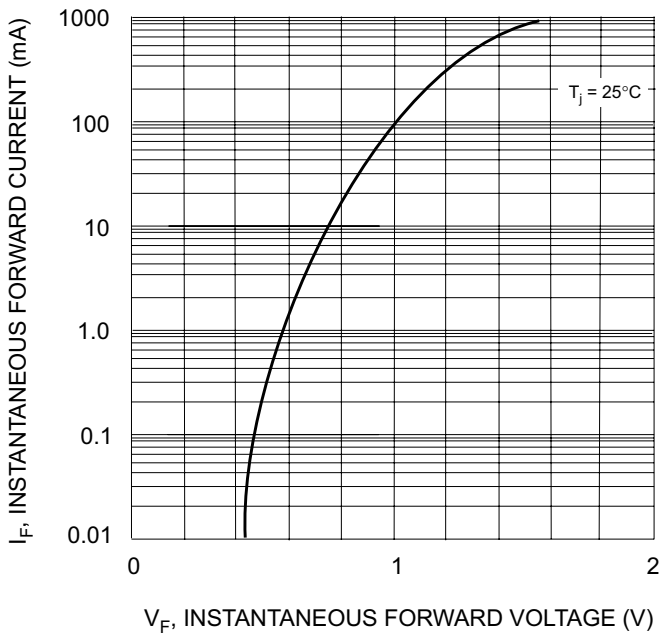


Fig. 1 Forward Characteristics

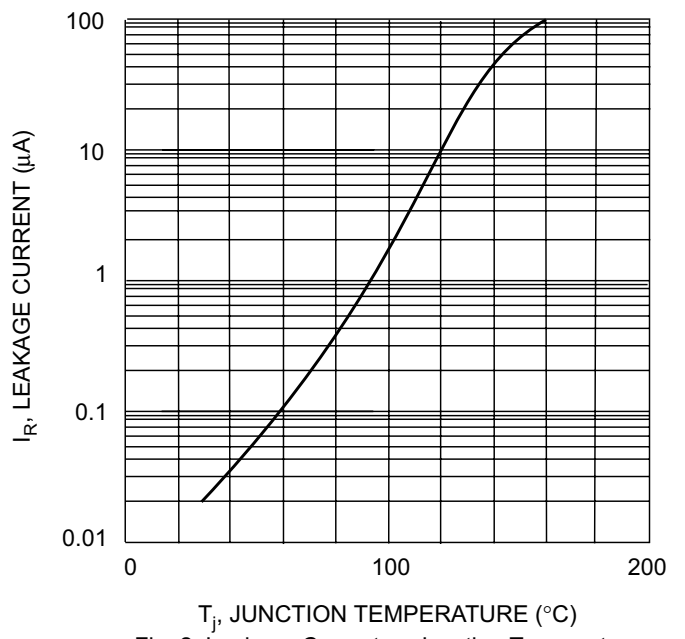


Fig. 2 Leakage Current vs Junction Temperature

## ORDERING INFORMATION

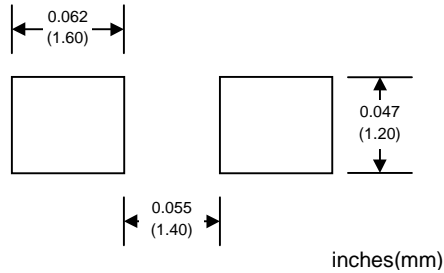
Product No. ♦	Package Type	Shipping Quantity
<b>BAS19WS-T1</b>	SOD-323	3000/Tape & Reel
BAS19WS-T3	SOD-323	10000/Tape & Reel
<b>BAS20WS-T1</b>	SOD-323	3000/Tape & Reel
BAS20WS-T3	SOD-323	10000/Tape & Reel
<b>BAS21WS-T1</b>	SOD-323	3000/Tape & Reel
BAS21WS-T3	SOD-323	10000/Tape & Reel

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



Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**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.

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*We power your everyday.*