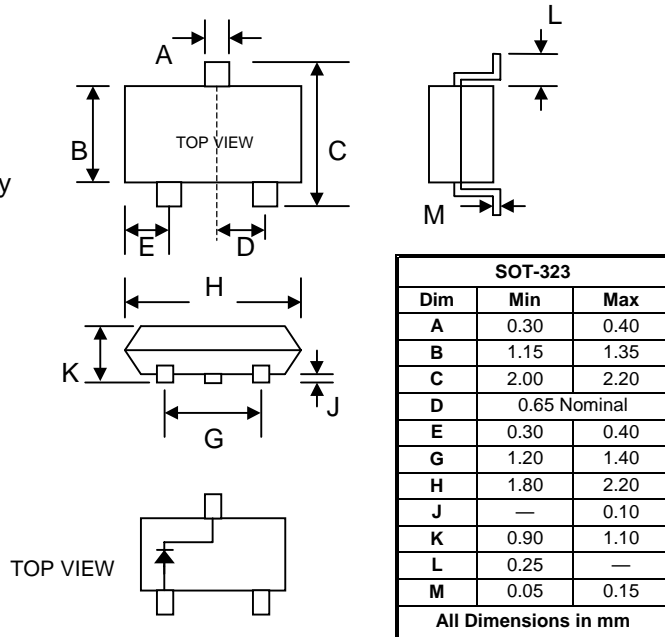


BAS19W – BAS21W

SURFACE MOUNT FAST SWITCHING DIODE

Features

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



Mechanical Data

- Case: SOT-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.006 grams (approx.)
- Mounting Position: Any
- Marking: BAS19W A8
 BAS20W A80
 BAS21W A82

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

Characteristic	Symbol	BAS19W	BAS20W	BAS21W	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				
Forward Continuous Current (Note 1)	I_F	400			mA
Average Rectified Output Current (Note 1)	I_O	200			mA
Peak Forward Surge Current (Note 1) @ $t = 1.0\mu\text{s}$	I_{FSM}	2.5			A
Power Dissipation (Note 1)	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	Min	Max	Unit	Test Condition
Forward Voltage	V_F	—	1.0 1.25	V	@ $I_F = 100\text{mA}$ @ $I_F = 200\text{mA}$
Reverse Leakage Current	I_R	—	100	nA	@ Rated DC Blocking Voltage
Junction Capacitance	C_j	—	5.0	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	50	nS	$I_F = I_R = 30\text{mA},$ $I_{RR} = 0.1 \times I_R, R_L = 100\Omega$

Note: 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.

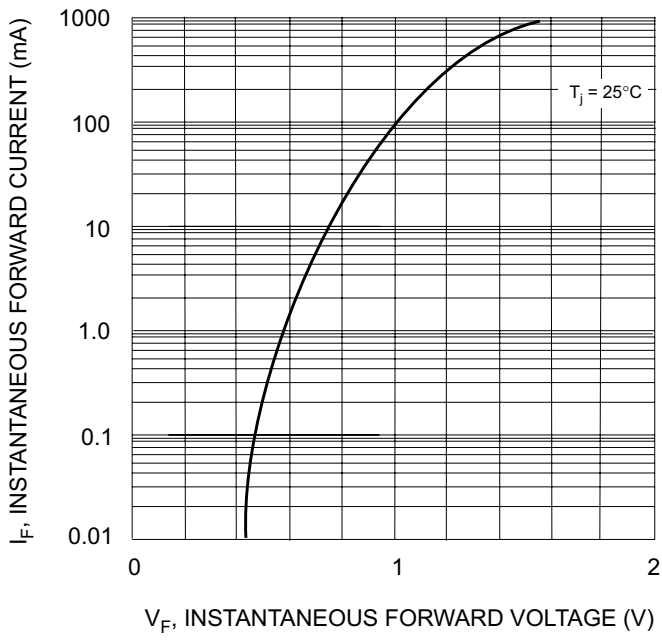


Fig. 1 Forward Characteristics

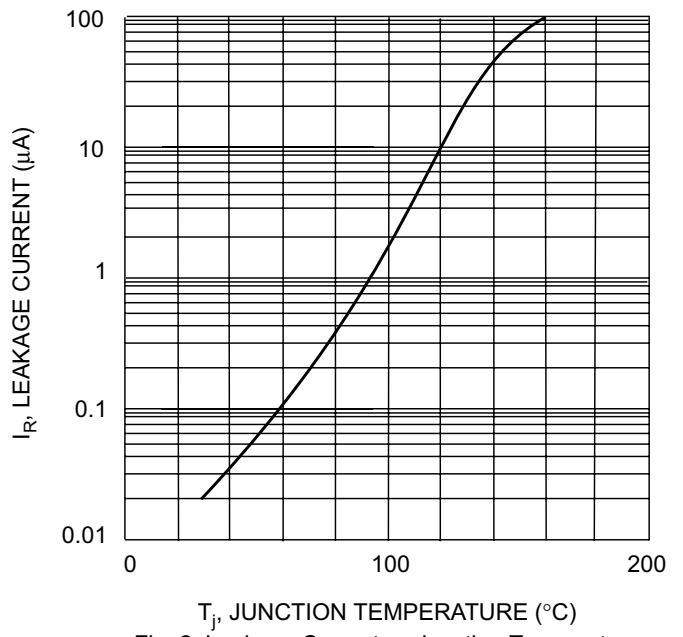


Fig. 2 Leakage Current vs Junction Temperature

ORDERING INFORMATION

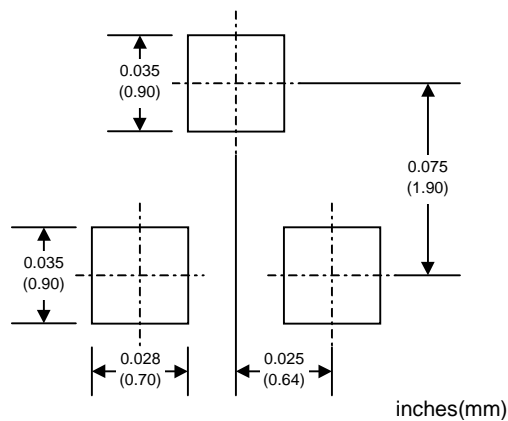
Product No.♦	Package Type	Shipping Quantity
BAS19W-T1	SOT-323	3000/Tape & Reel
BAS19W-T3	SOT-323	10000/Tape & Reel
BAS20W-T1	SOT-323	3000/Tape & Reel
BAS20W-T3	SOT-323	10000/Tape & Reel
BAS21W-T1	SOT-323	3000/Tape & Reel
BAS21W-T3	SOT-323	10000/Tape & Reel

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.

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.