

BAS19 – BAS21

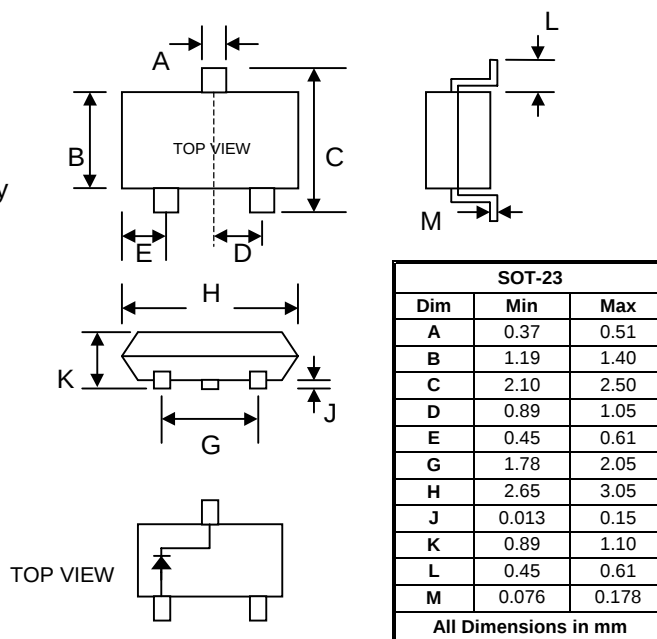
SURFACE MOUNT FAST SWITCHING DIODE

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-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- Marking: BAS19 A8
BAS20 A80
BAS21 A82



Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	BAS19	BAS20	BAS21	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 = 1.0μs	I _{FSM}	2.5			A
Power Dissipation (Note 1)	P _d	350			mW
Typical 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 @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage	V _F	—	1.0 1.25	V	@ I _F = 100mA @ I _F = 200mA
Reverse Leakage Current	I _R	—	100	nA	@ Rated DC Blocking Voltage
Junction Capacitance	C _j	—	5.0	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	50	nS	I _F = I _R = 30mA, I _{RR} = 0.1 x I _R , R _L = 100Ω

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

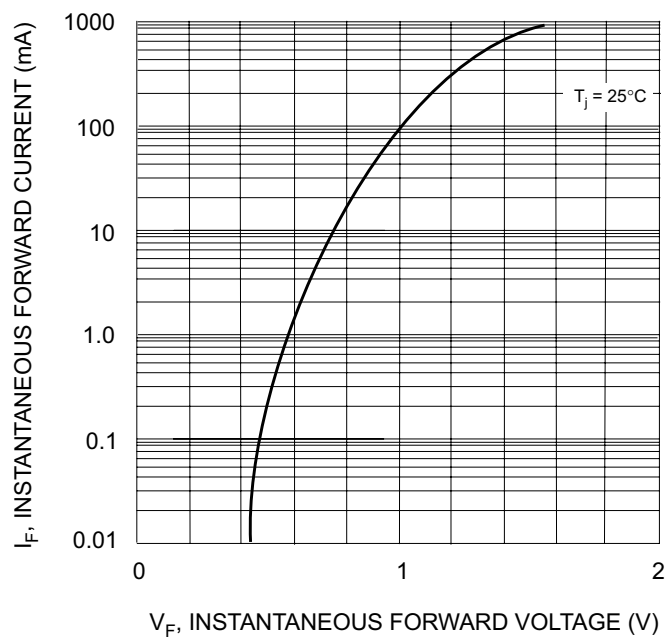


Fig. 1 Forward Characteristics

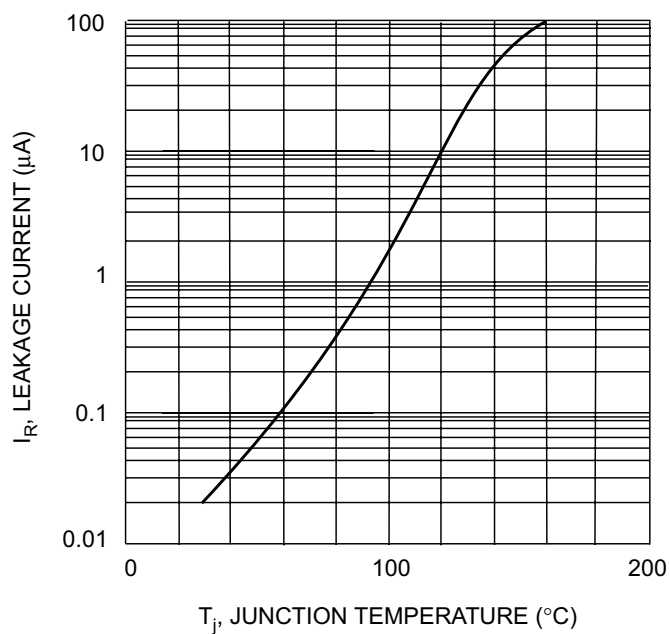


Fig. 2 Leakage Current vs Junction Temperature

ORDERING INFORMATION

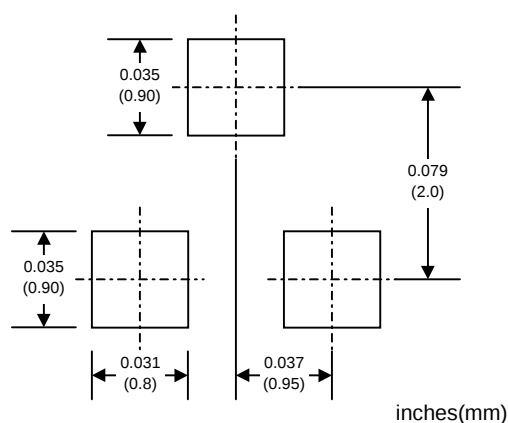
Product No. ♦	Package Type	Shipping Quantity
BAS19-T1	SOT-23	3000/Tape & Reel
BAS19-T3	SOT-23	10000/Tape & Reel
BAS20-T1	SOT-23	3000/Tape & Reel
BAS20-T3	SOT-23	10000/Tape & Reel
BAS21-T1	SOT-23	3000/Tape & Reel
BAS21-T3	SOT-23	10000/Tape & Reel

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>

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