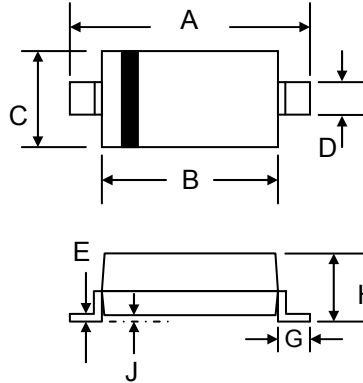


Features

- Silicon Epitaxial Planar Die Construction
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0



SOD-123		
Dim	Min	Max
A	3.60	3.90
B	2.50	2.80
C	1.40	1.80
D	0.50	0.70
E	—	0.20
G	0.25	—
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: Device Code, See Page 3
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	120	200	250	V
Working Peak Reverse Voltage DC Blocking Voltage	V _{RWM} V _R	100	150	200	V
Forward Continuous Current	I _F	200			mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I _{FSM}	2.5 0.5			A
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150			°C

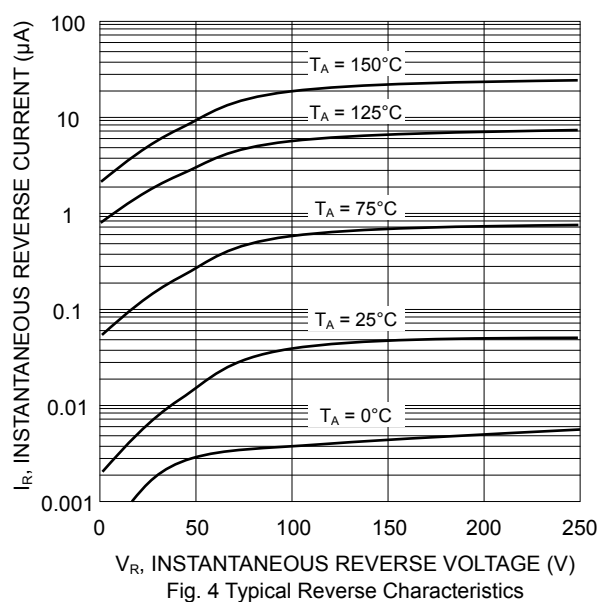
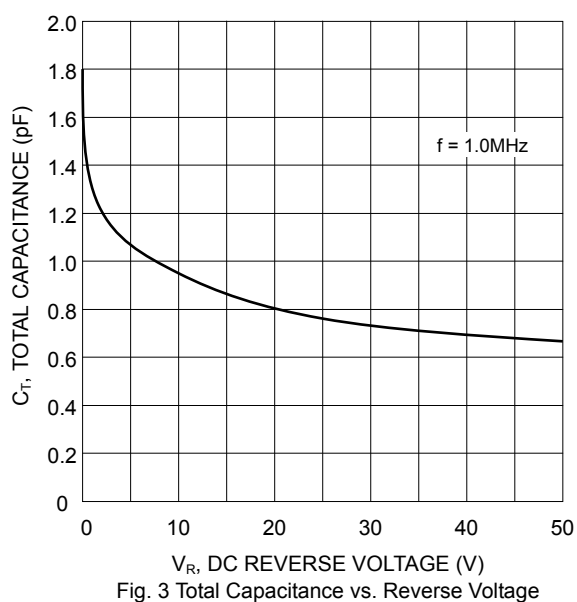
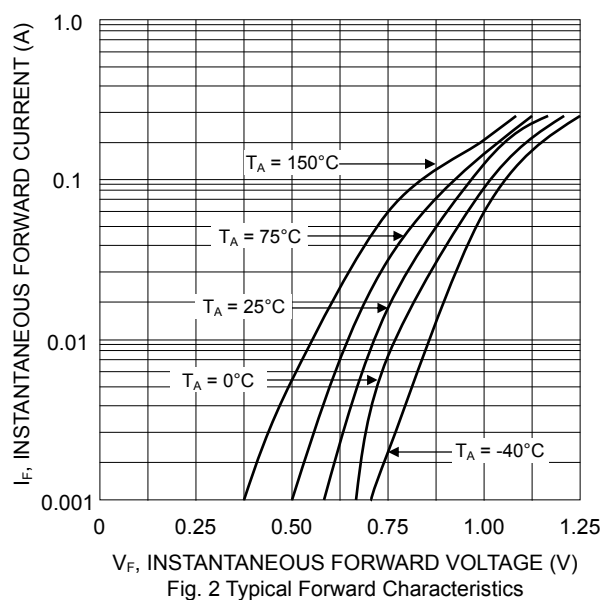
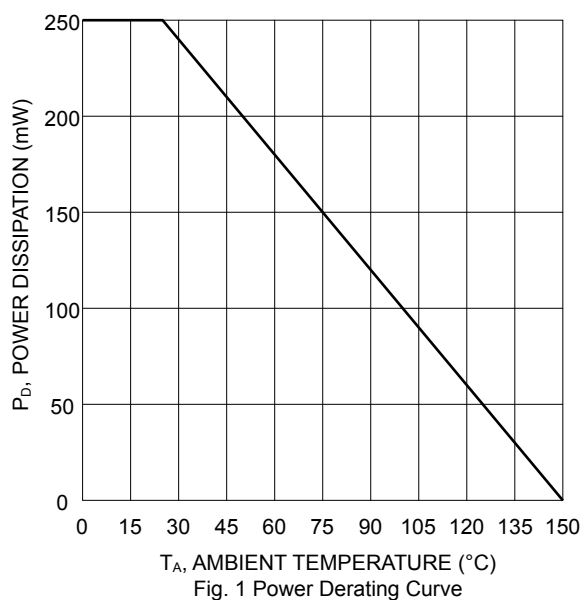
Thermal Characteristics

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Power Dissipation (Note 1)	P _D	250			mW
Thermal Resistance, Junction to Ambient (Note 1)	R _{θJA}	500			°C/W

Note: 1. Mounted on FR-4 PC board with minimum recommended pad layout.

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Reverse Breakdown Voltage @ I _R = 100μA	V _(BR)	120	200	250	V
Forward Voltage Drop @ I _F = 100mA @ I _F = 200mA	V _{FM}	1.0 1.25			V
Peak Reverse Leakage Current @ Rated V _R , T _J = 25°C @ Rated V _R , T _J = 150°C	I _{RM}	100 100			nA μA
Diode Capacitance (V _R = 0V, f = 1.0MHz)	C _D	5.0			pF
Reverse Recovery Time (I _F = I _R = 30mA, I _{RR} = 0.1 x I _R , R _L = 100Ω)	t _{rr}	50			nS



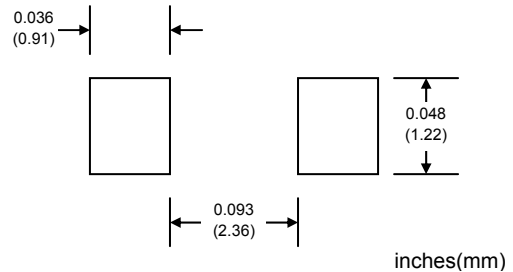
MARKING INFORMATION



xx = Device Code, See Table Below

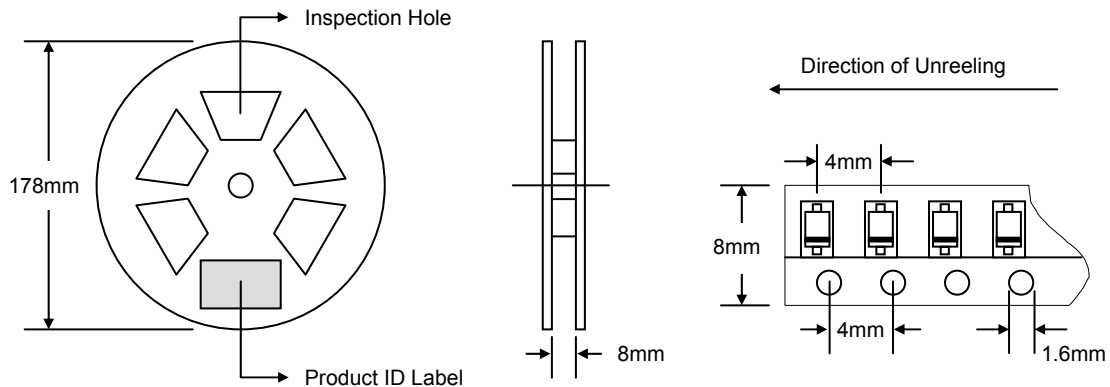
Mfg Site	BAV19W	BAV20W	BAV21W
TW Plant	A8	A80	A82
CN Plant	A8	T2	T3

RECOMMENDED FOOTPRINT



PACKAGING INFORMATION

TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

Note: 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
BAV19W-T1	SOD-123	3000/Tape & Reel
BAV20W-T1	SOD-123	3000/Tape & Reel
BAV21W-T1	SOD-123	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, BAV19W-T1-LF.**

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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 806, 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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