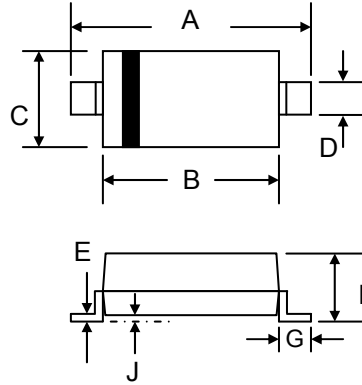


Features

- Low Turn-On Voltage
- Fast Switching Speed
- PN Junction Guard Ring for Transient and ESD Protection
- 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 @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	BAT42W	BAT43W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30		V
Forward Continuous Current	I_F	200		mA
Repetitive Peak Forward Current @ $t < 1.0\text{s}$	I_{FRM}	500		mA
Non-Repetitive Peak Forward Surge Current @ $t < 10\text{ms}$	I_{FSM}	4.0		A
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +125		$^{\circ}\text{C}$

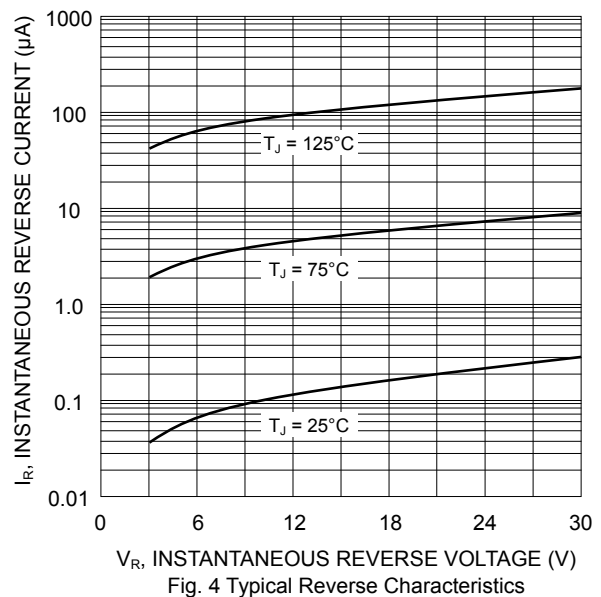
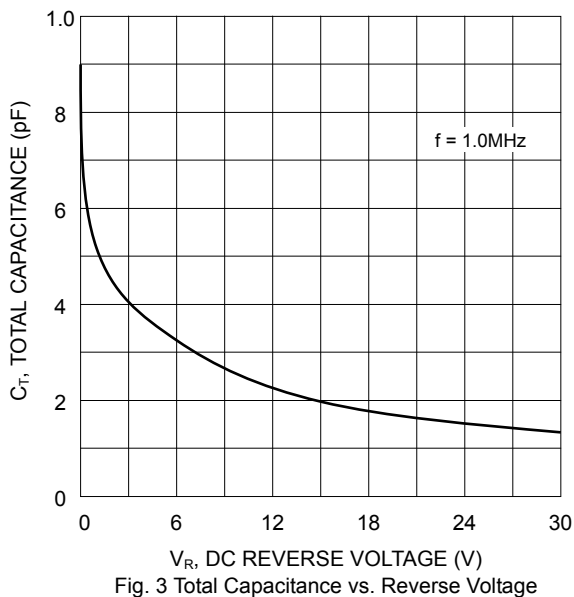
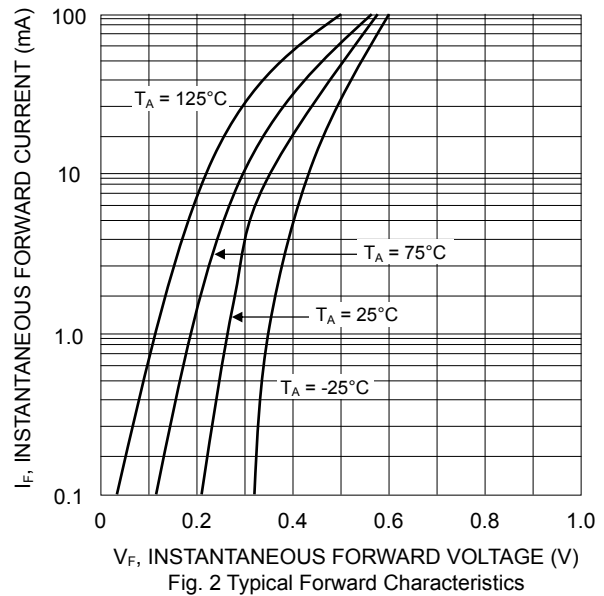
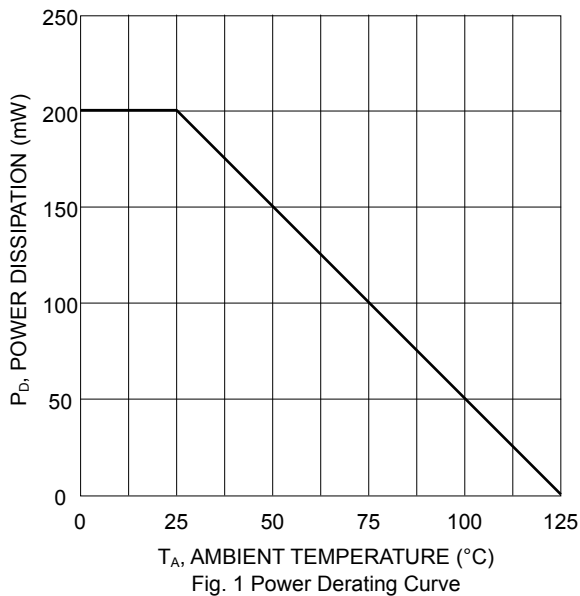
Thermal Characteristics

Characteristic	Symbol	BAT42W	BAT43W	Unit
Power Dissipation (Note 1)	P_D	200		mW
Thermal Resistance, Junction to Ambient (Note 1)	R_{JA}	500		$^{\circ}\text{C}/\text{W}$

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

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

Characteristic	Symbol	BAT42W	BAT43W	Unit
Min. Reverse Breakdown Voltage @ $I_R = 100\mu\text{A}$	$V_{(BR)}$	30		V
Max. Forward Voltage Drop @ $I_F = 2.0\text{mA}$ @ $I_F = 10\text{mA}$ @ $I_F = 200\text{mA}$	V_{FM}	— 0.4 1.0	0.33 — 1.0	V
Peak Reverse Leakage Current @ $V_R = 25\text{V}, T_J = 25^\circ\text{C}$ @ $V_R = 25\text{V}, T_J = 100^\circ\text{C}$	I_{RM}	0.5 100		μA
Diode Capacitance ($V_R = 1.0\text{V}, f = 1.0\text{MHz}$)	C_D	10		pF
Reverse Recovery Time ($I_F = I_R = 10\text{mA}, I_{RR} = 0.1 \times I_R, R_L = 100\Omega$)	t_{rr}	5.0		nS



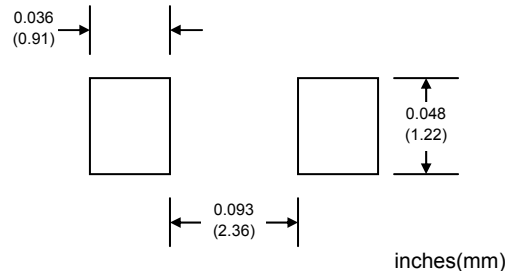
MARKING INFORMATION



xx = Device Code, See Table Below

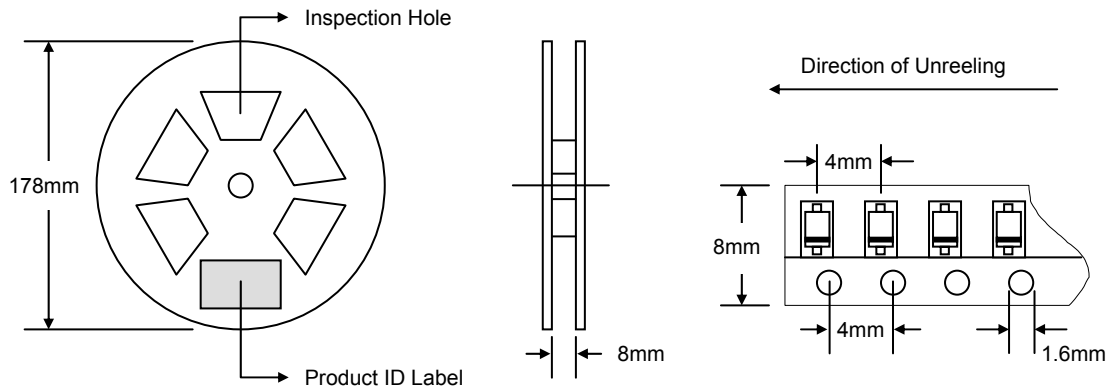
Mfg Site	BAT42W	BAT43W
TW Plant	L2	L3
CN Plant	S7	S8

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
BAT42W-T1	SOD-123	3000/Tape & Reel
BAT43W-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, BAT42W-T1-LF.**

WON-TOP ELECTRONICS and  are registered trademarks of Won-Top Electronics Co., Ltd (WTE). 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 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>

We power your everyday.