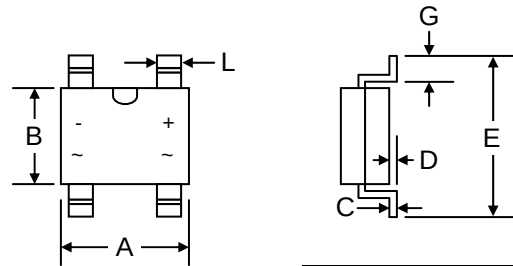


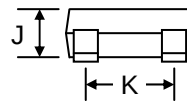
### Features

- **Ultra-Slim 1.5mm Max. Case Height**
- Glass Passivated Die Construction
- High Reliability
- Low Forward Voltage Drop
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Flammability 94V-0



### Mechanical Data

- Case: TB-S, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.10 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



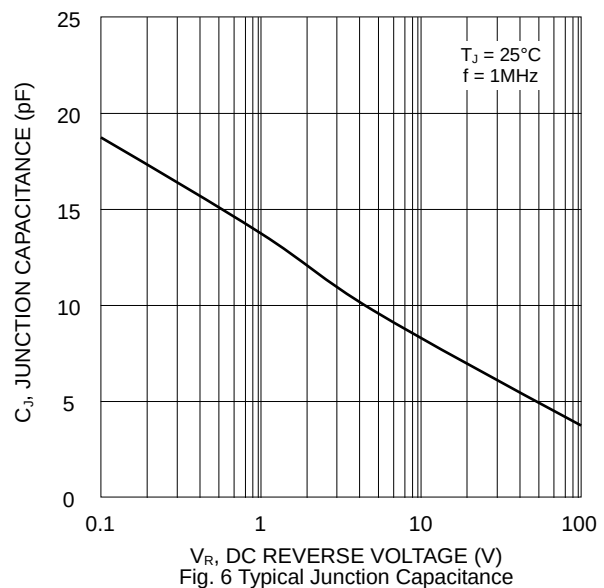
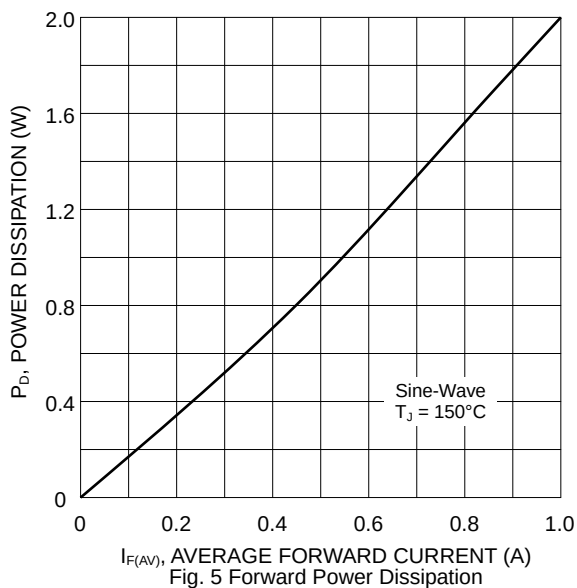
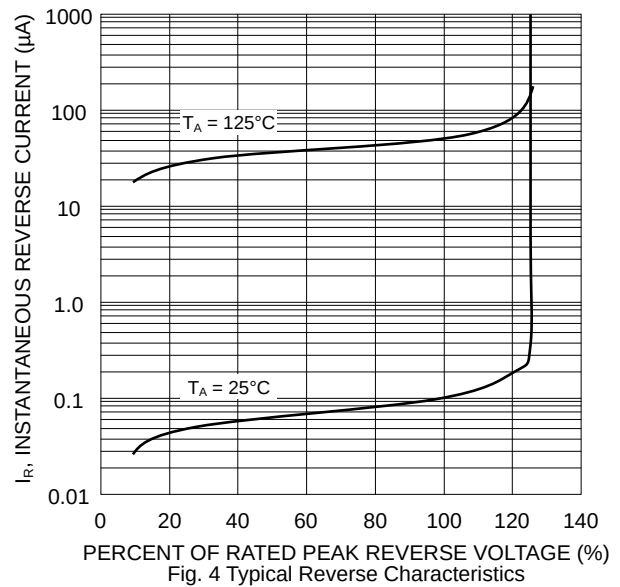
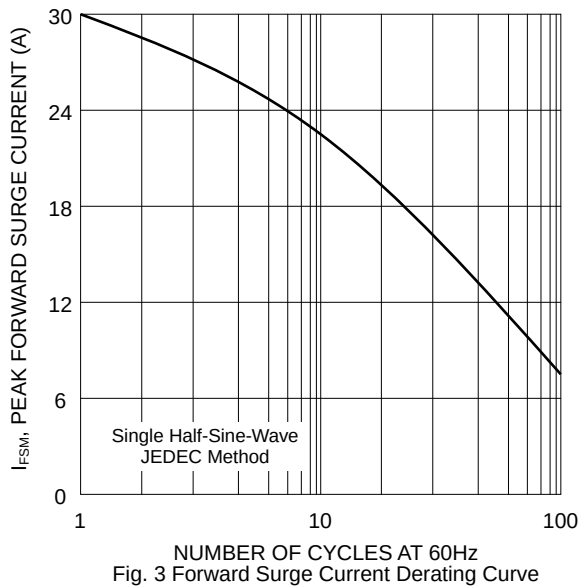
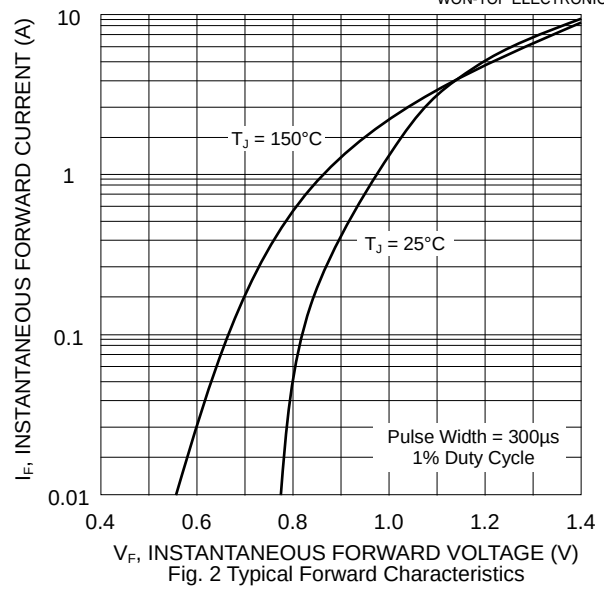
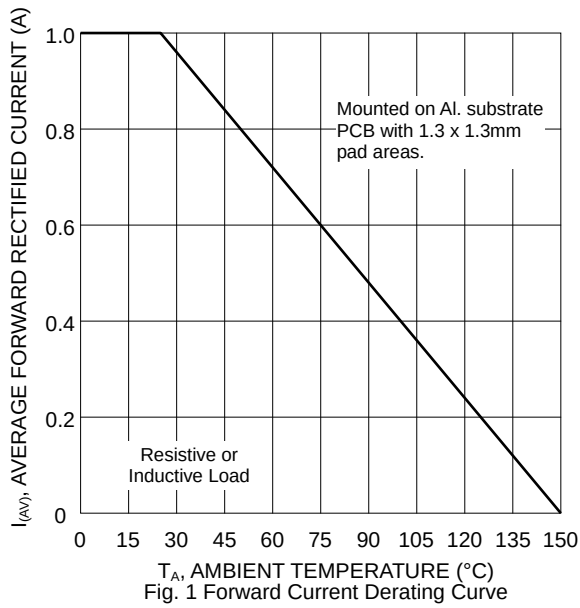
| TB-S                 |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 4.80 | 5.20 |
| B                    | 4.20 | 4.60 |
| C                    | 0.10 | 0.30 |
| D                    | 0.05 | 0.15 |
| E                    | 6.00 | 6.40 |
| G                    | 0.30 | 0.80 |
| J                    | 1.30 | 1.50 |
| K                    | 3.80 | 4.20 |
| L                    | 0.60 | 0.70 |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

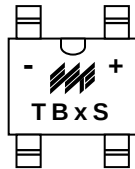
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic                                                                                                  | Symbol                            | TB1S        | TB2S | TB4S | TB6S | TB8S | TB10S | Unit |
|-----------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------|------|------|------|-------|------|
| Peak Repetitive Reverse Voltage                                                                                 | V <sub>RRM</sub>                  | 100         | 200  | 400  | 600  | 800  | 1000  | V    |
| Working Peak Reverse Voltage                                                                                    | V <sub>RWM</sub>                  |             |      |      |      |      |       |      |
| DC Blocking Voltage                                                                                             | V <sub>R</sub>                    |             |      |      |      |      |       |      |
| RMS Reverse Voltage                                                                                             | V <sub>R(RMS)</sub>               | 70          | 140  | 280  | 420  | 560  | 700   | V    |
| Average Rectified Output Current (Note 1) @T <sub>A</sub> = 25°C                                                | I <sub>O</sub>                    | 1.0         |      |      |      |      |       | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | I <sub>FSM</sub>                  | 30          |      |      |      |      |       | A    |
| Forward Voltage per diode @I <sub>F</sub> = 0.4A<br>@I <sub>F</sub> = 1.0A                                      | V <sub>FM</sub>                   | 0.95<br>1.1 |      |      |      |      |       | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C             | I <sub>RM</sub>                   | 5.0<br>500  |      |      |      |      |       | μA   |
| Typical Junction Capacitance per leg (Note 2)                                                                   | C <sub>J</sub>                    | 10          |      |      |      |      |       | pF   |
| Thermal Resistance Junction to Ambient (Note 1)                                                                 | R <sub>θJA</sub>                  | 62.5        |      |      |      |      |       | °C/W |
| Thermal Resistance Junction to Lead (Note 3)                                                                    | R <sub>θJL</sub>                  | 25          |      |      |      |      |       |      |
| Operating and Storage Temperature Range                                                                         | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150 |      |      |      |      |       | °C   |

Note: 1. Mounted on aluminum substrate PCB with 1.3 x 1.3mm pad areas.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
3. Mounted on glass epoxy PCB with 1.3 x 1.3mm pad areas.

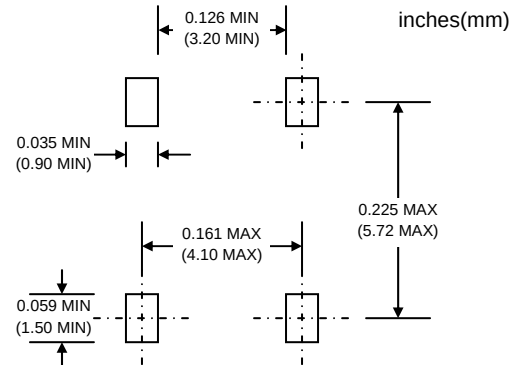


## MARKING INFORMATION



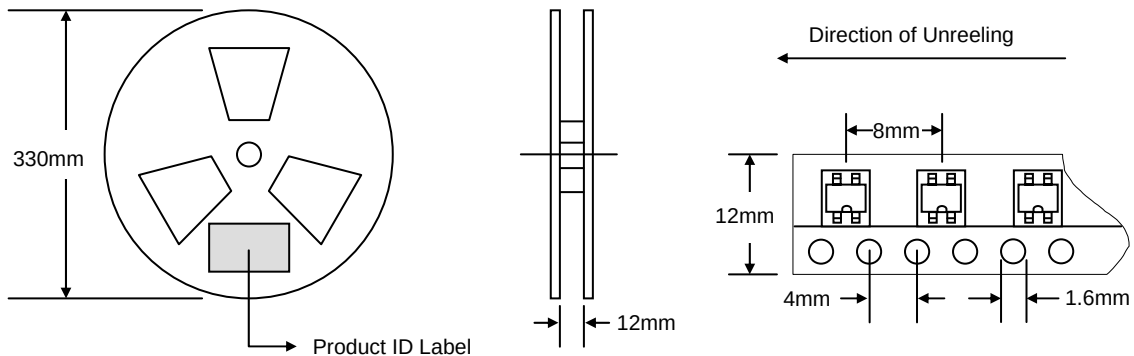
TBxS = Device Number  
 x = 1, 2, 4, 6, 8 or 10  
 Polarity = As Marked on Body

## 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) |
|--------------------|----------------|-------------------------------|----------------|----------------------------|----------------|---------------------------|
| 330                | 4,000          | 340 x 337 x 45                | 8,000          | 370 x 370 x 420            | 64,000         | 14.0                      |

**Note:** 1. Paper reel, white or gray color.  
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| TB1S-T3     | TB-S         | 4000/Tape & Reel  |
| TB2S-T3     | TB-S         | 4000/Tape & Reel  |
| TB4S-T3     | TB-S         | 4000/Tape & Reel  |
| TB6S-T3     | TB-S         | 4000/Tape & Reel  |
| TB8S-T3     | TB-S         | 4000/Tape & Reel  |
| TB10S-T3    | TB-S         | 4000/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, TB1S-T3-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.

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**Internet:** <http://www.wontop.com>

*We power your everyday.*