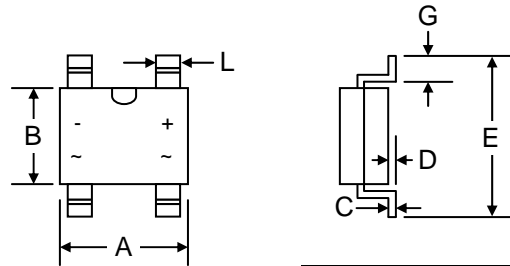


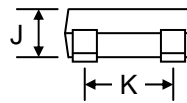
### Features

- **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 @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	0.95 1.1						V
Peak Reverse Current At Rated DC Blocking Voltage @T <sub>A</sub> = 25°C @T <sub>A</sub> = 125°C	I <sub>RM</sub>	5.0 500						μA
Typical Junction Capacitance per leg (Note 2)	C <sub>J</sub>	10						pF
Thermal Resistance Junction to Ambient (Note 1)	R <sub>JA</sub>	62.5						°C/W
Thermal Resistance Junction to Lead (Note 3)	R <sub>JL</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.

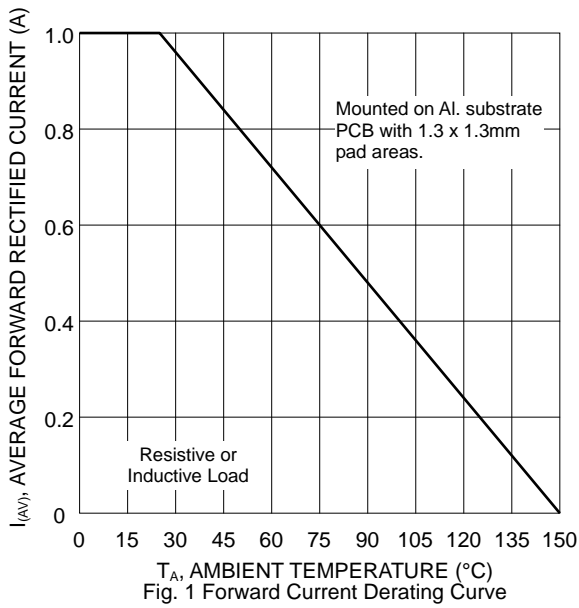


Fig. 1 Forward Current Derating Curve

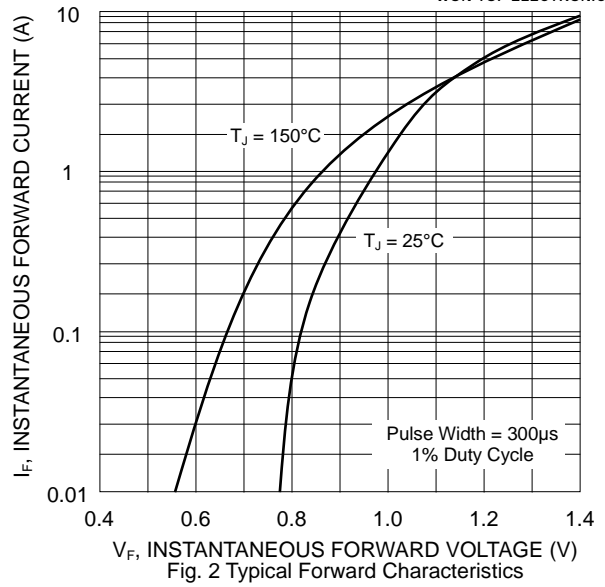


Fig. 2 Typical Forward Characteristics

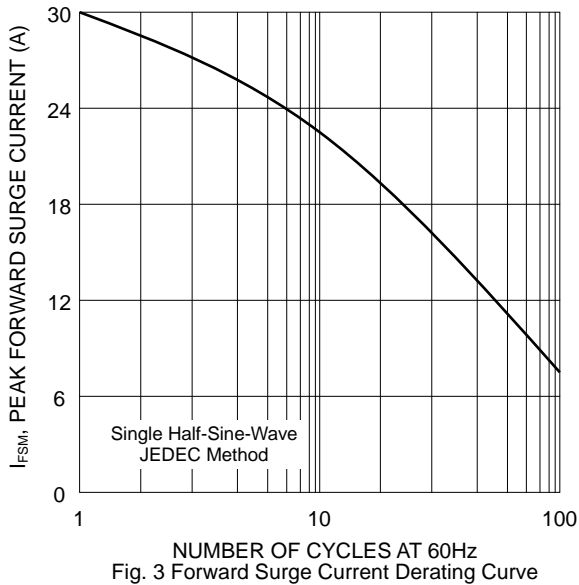


Fig. 3 Forward Surge Current Derating Curve

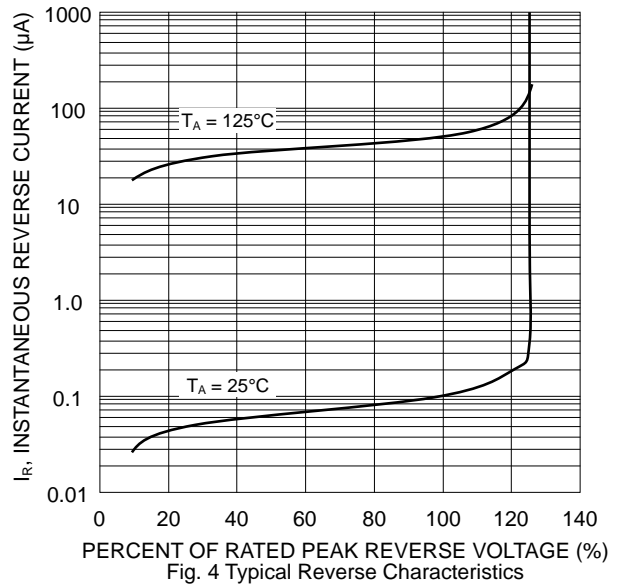


Fig. 4 Typical Reverse Characteristics

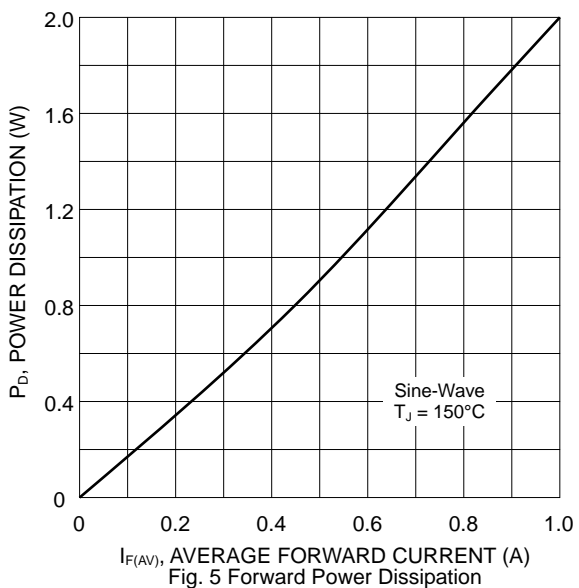


Fig. 5 Forward Power Dissipation

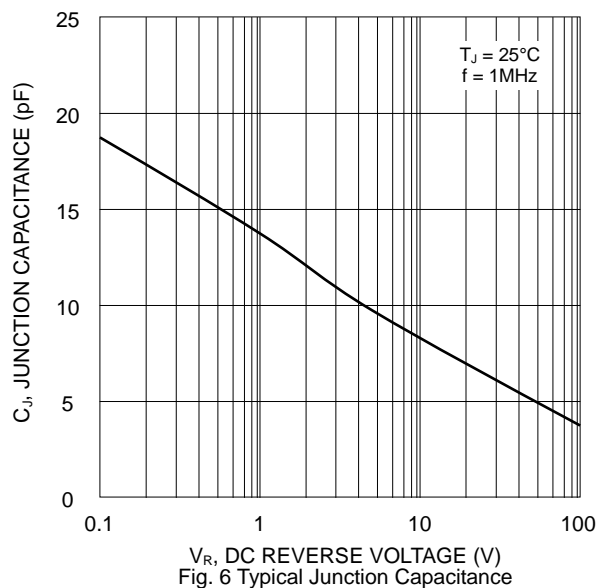
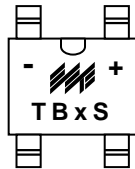


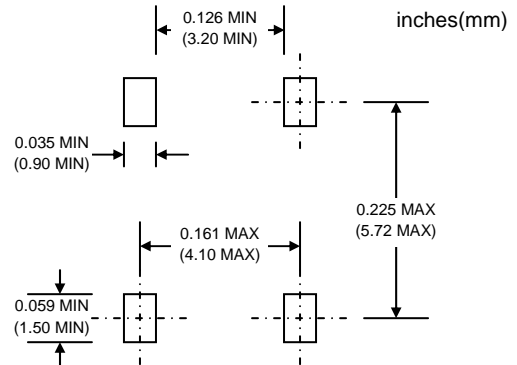
Fig. 6 Typical Junction Capacitance

## MARKING INFORMATION



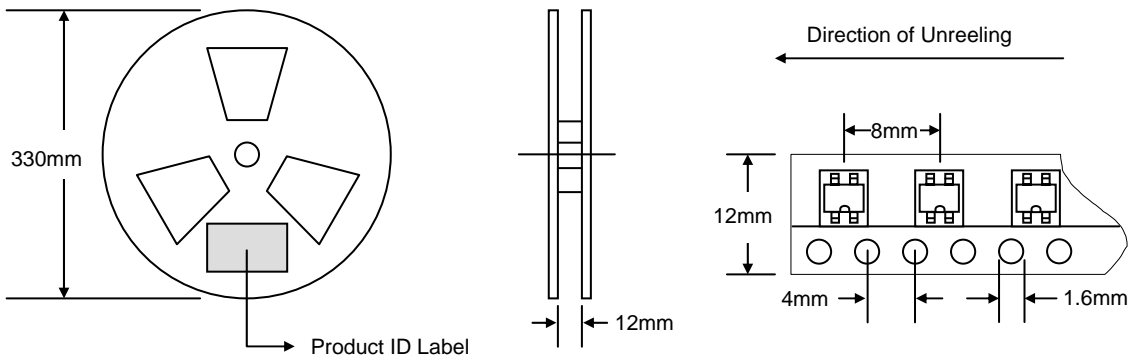
TBxS = Device Number  
 x = 1, 2, 4, 6, 8 or 10  
 Polarity = As Marked on Body

## 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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