
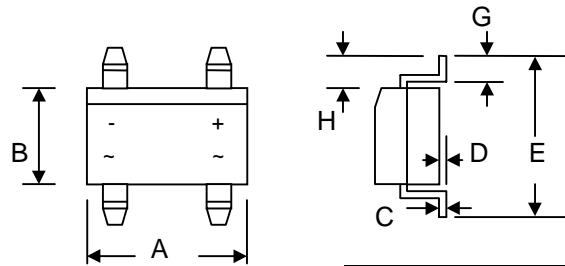


0.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

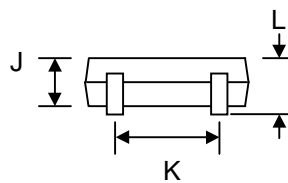
Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Flammability 94V-O
-  Recognized File # E157705



Mechanical Data

- Case: MB-S, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.22 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



MB-S		
Dim	Min	Max
A	4.50	4.90
B	3.80	4.20
C	0.15	0.35
D	—	0.20
E	—	7.00
G	0.70	1.10
H	1.30	1.70
J	2.30	2.70
K	2.30	2.70
L	—	3.00
All Dimensions in mm		

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

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

Characteristic	Symbol	B1S	B2S	B4S	B6S	B8S	B10S	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}							
DC Blocking Voltage	V_R							
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A = 40^\circ\text{C}$	I_O	0.5						A
Average Rectified Output Current (Note 2) @ $T_A = 40^\circ\text{C}$		0.8						
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30						A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	5.0						A^2s
Forward Voltage per element @ $I_F = 0.5\text{A}$	V_{FM}	1.0						V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_{RM}	5.0						μA
At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$		500						
Typical Junction Capacitance per leg (Note 3)	C_j	25						pF
Typical Thermal Resistance per leg (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	85 20						$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150						$^\circ\text{C}$

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

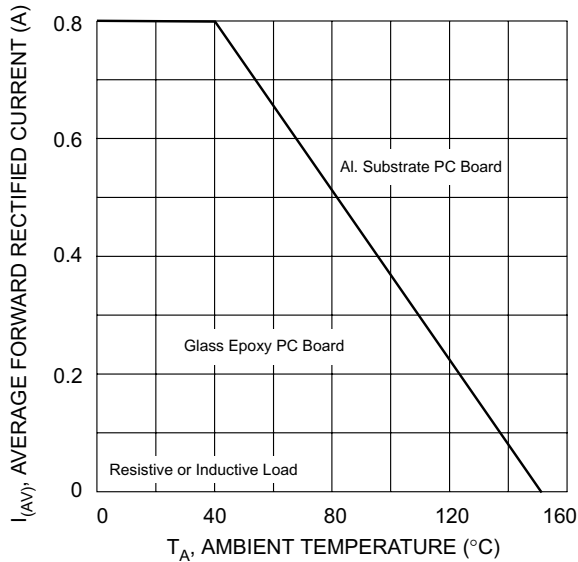


Fig. 1 Output Current Derating Curve

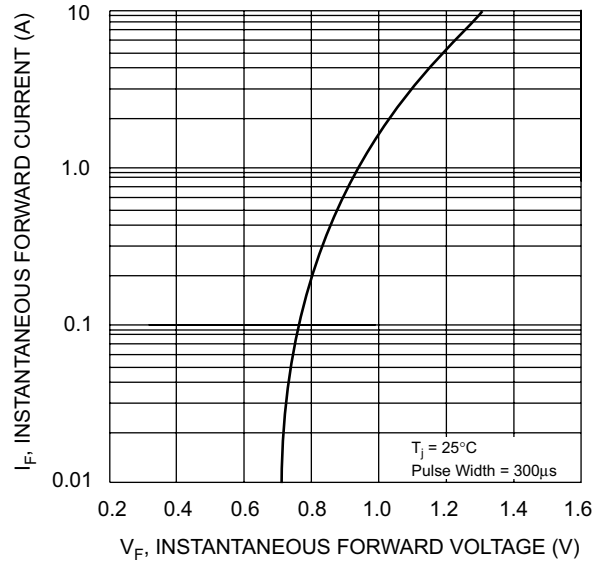


Fig. 2 Typical Forward Characteristics (per leg)

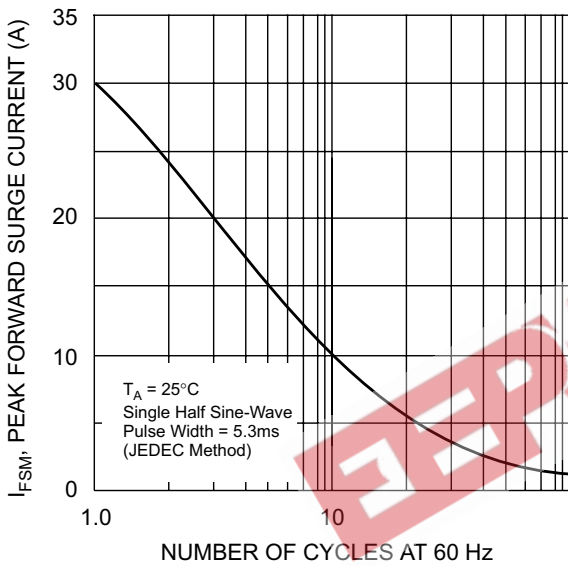


Fig. 3 Maximum Peak Forward Surge Current (per leg)

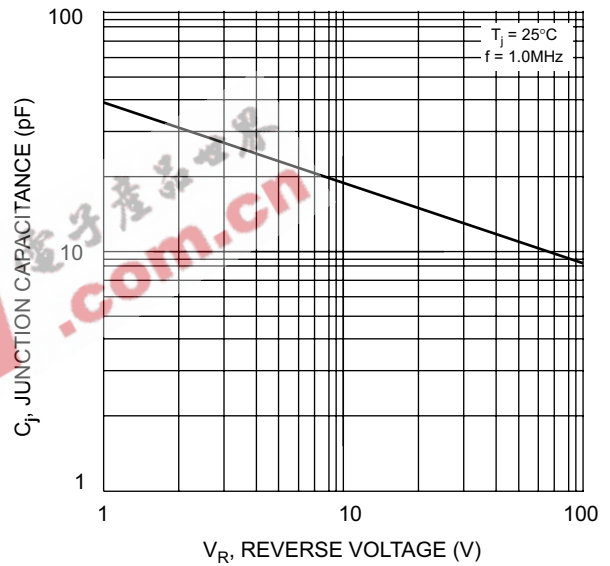


Fig. 4 Typical Junction Capacitance

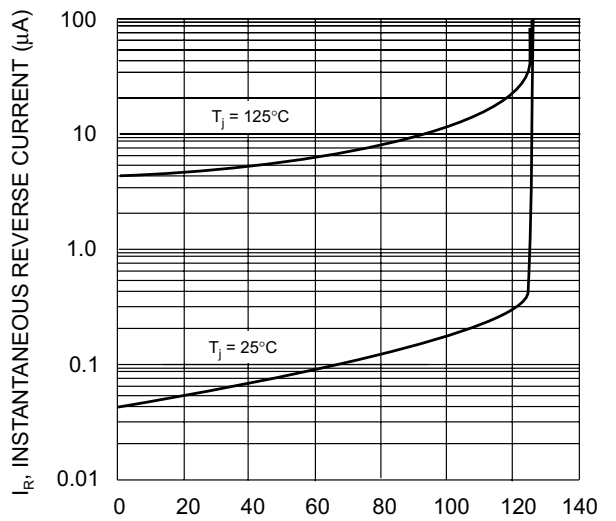
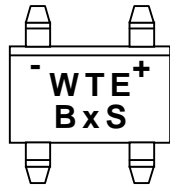


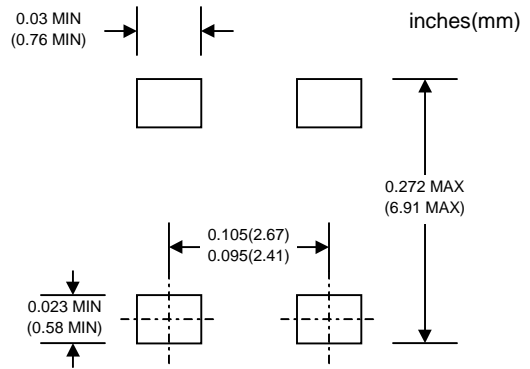
Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION



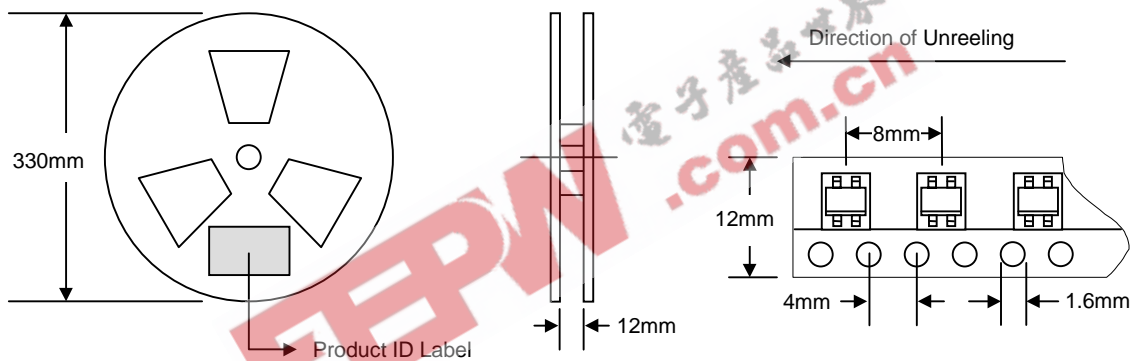
WTE = Manufacturer's Logo
 BxS = Device Number
 x = 1, 2, 4, 6, 8 or 10
 Polarity = As Marked on Body

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	3,000	340 x 337 x 45	6,000	370 x 370 x 420	48,000	15.0

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
B1S-T3	Mini Bridge SMD	3000/Tape & Reel
B2S-T3	Mini Bridge SMD	3000/Tape & Reel
B4S-T3	Mini Bridge SMD	3000/Tape & Reel
B6S-T3	Mini Bridge SMD	3000/Tape & Reel
B8S-T3	Mini Bridge SMD	3000/Tape & Reel
B10S-T3	Mini Bridge SMD	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 Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, B1S-T3-LF.**

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