



B1S – B10S



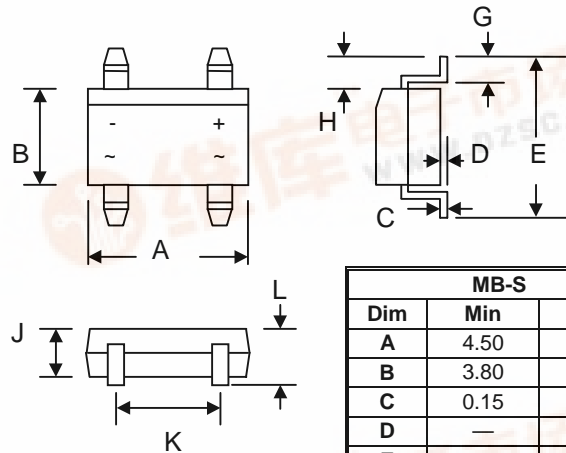
0.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

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°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 Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RFWM} V _R	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T _A = 40°C Average Rectified Output Current (Note 2) @T _A = 40°C	I _O	0.5 0.8						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30						A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	5.0						A ² s
Forward Voltage per element @I _F = 0.5A	V _{FM}	1.0						V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}	5.0 500						μA
Typical Junction Capacitance per leg (Note 3)	C _j	25						pF
Typical Thermal Resistance per leg (Note 1)	R _{θJA} R _{θJL}	85 20						°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150						°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Mounted on aluminum substrate PC board with 1.3mm² solder pad.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

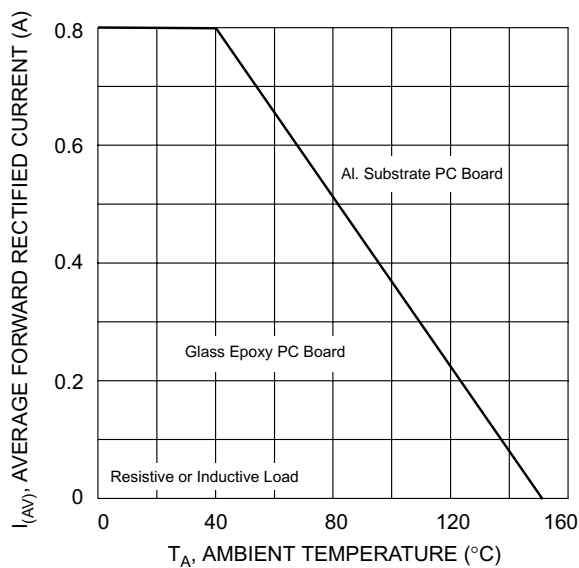


Fig. 1 Output Current Derating Curve

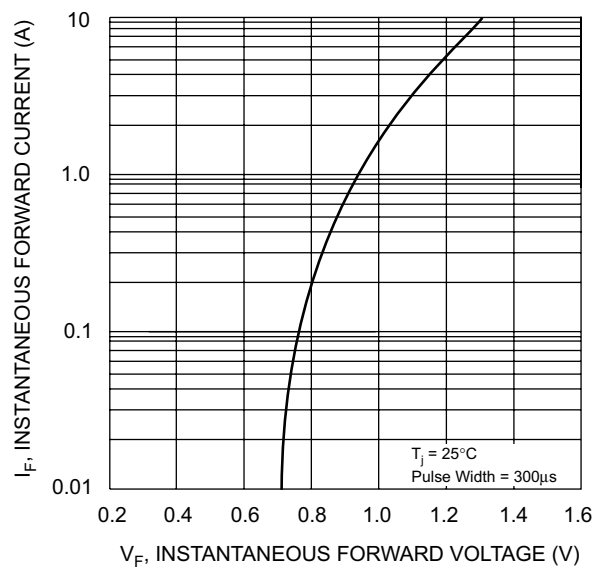


Fig. 2 Typical Forward Characteristics (per leg)

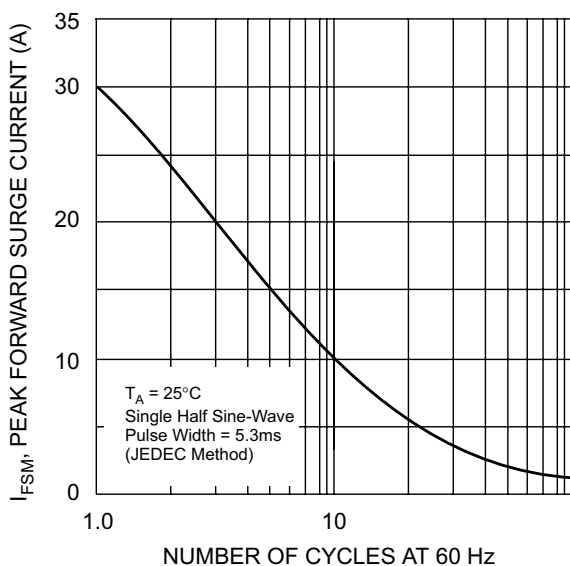


Fig. 3 Maximum Peak Forward Surge Current (per leg)

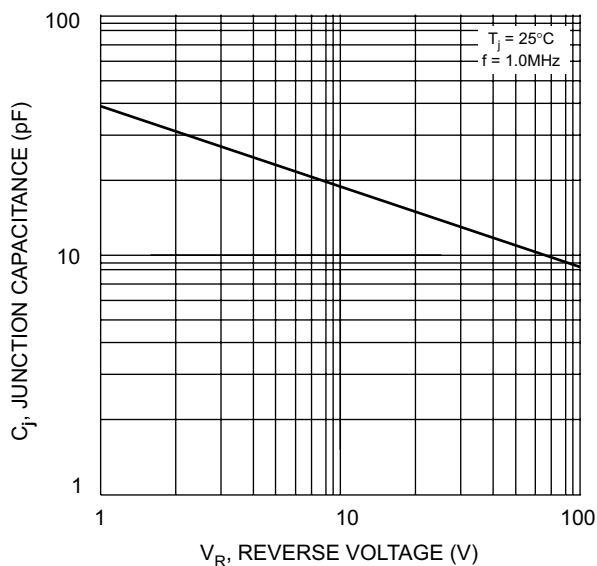


Fig. 4 Typical Junction Capacitance

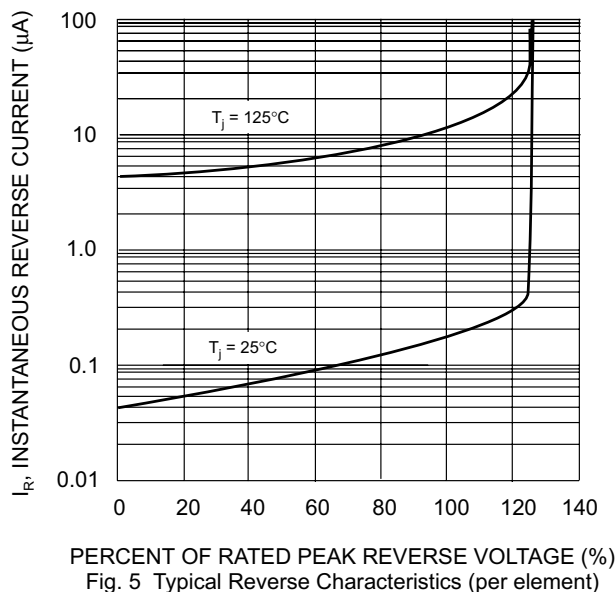
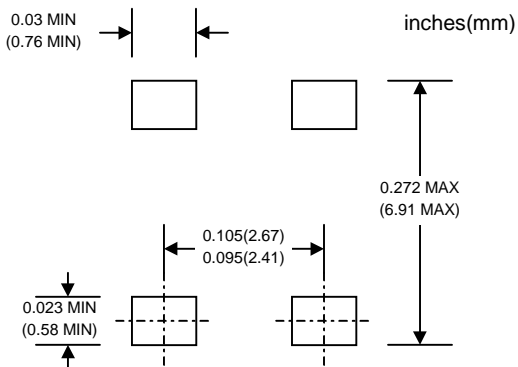
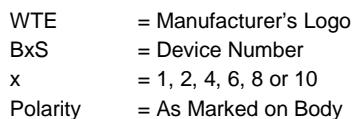


Fig. 5 Typical Reverse Characteristics (per element)

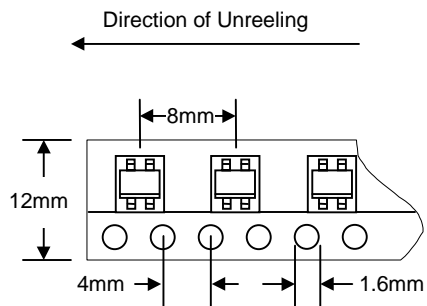
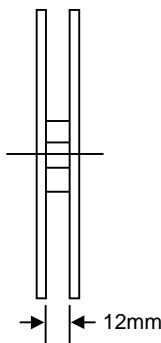
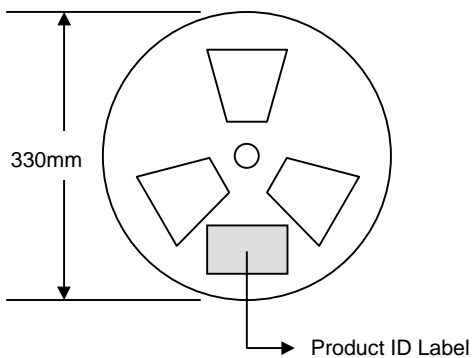
MARKING INFORMATION

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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