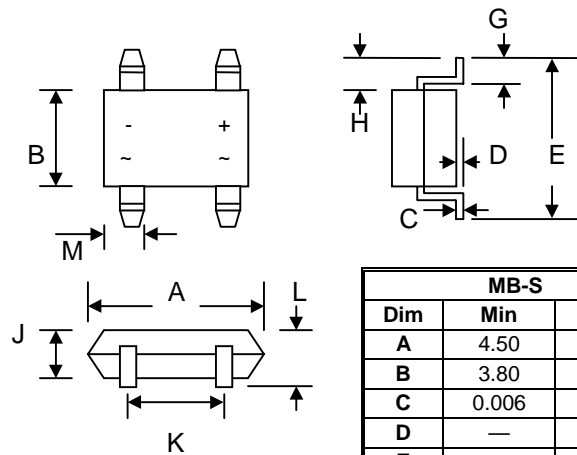


## 0.5A MINI SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-0



MB-S		
Dim	Min	Max
A	4.50	4.90
B	3.80	4.20
C	0.006	0.35
D	—	0.20
E	—	7.0
G	0.70	1.10
H	1.30	1.70
J	2.30	2.70
K	2.30	2.70
L	—	3.00
M	0.50	0.80
All Dimensions in mm		

### Mechanical Data

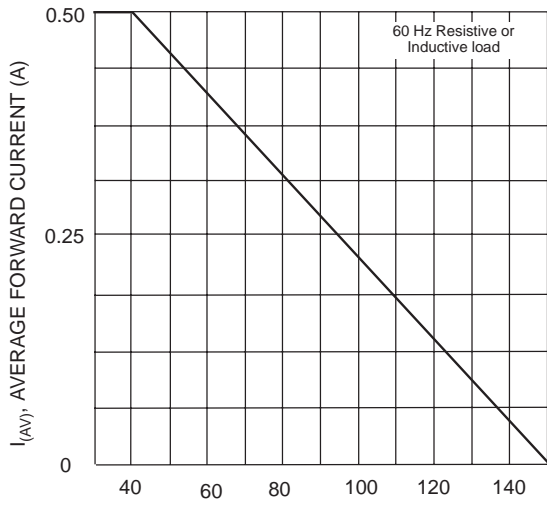
- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.22 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

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

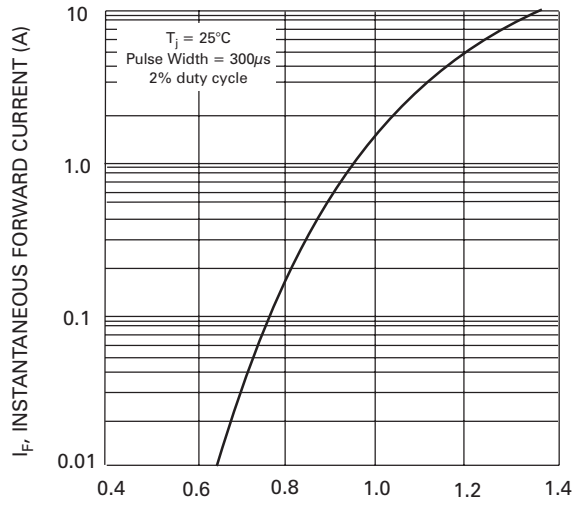
Single Phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

Characteristic	Symbol	B1S	B2S	B4S	B6S	B8S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	100	200	400	600	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	V
Average Rectified Output Current @ $T_A = 40^{\circ}\text{C}$	$I_o$	0.5					A
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 ( $t < 8.35\text{ms}$ )	$I^2t$	10					$\text{A}^2\text{s}$
Forward Voltage per element @ $I_F = 0.5\text{A}$	$V_{FM}$	1.0					V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^{\circ}\text{C}$	$I_{RM}$	5.0 500					$\mu\text{A}$
Typical Junction Capacitance (per leg) (Note 1)	$C_j$	25					pF
Typical Thermal Resistance (per leg) (Note 2)	$R_{\theta JA}$	85					K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150					$^{\circ}\text{C}$

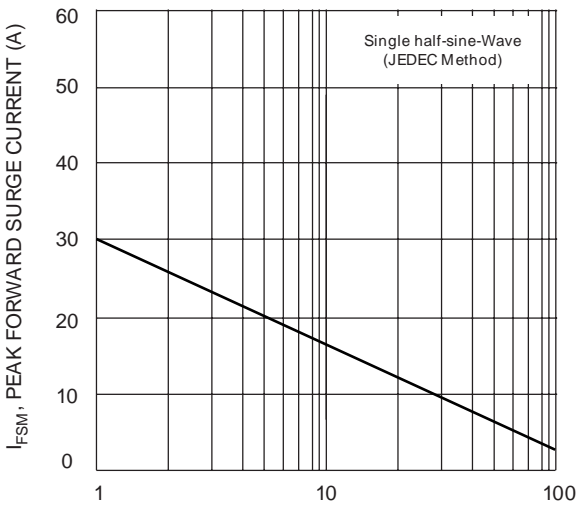
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 2. Thermal resistance junction to ambient mounted on PC board with 13mm<sup>2</sup> copper pads.



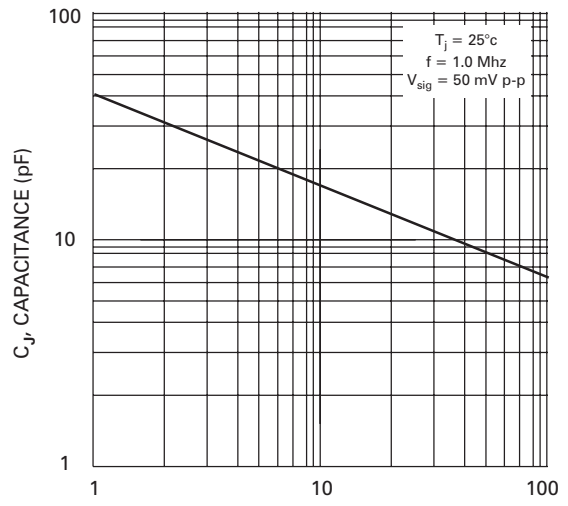
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Output Current Derating Curve



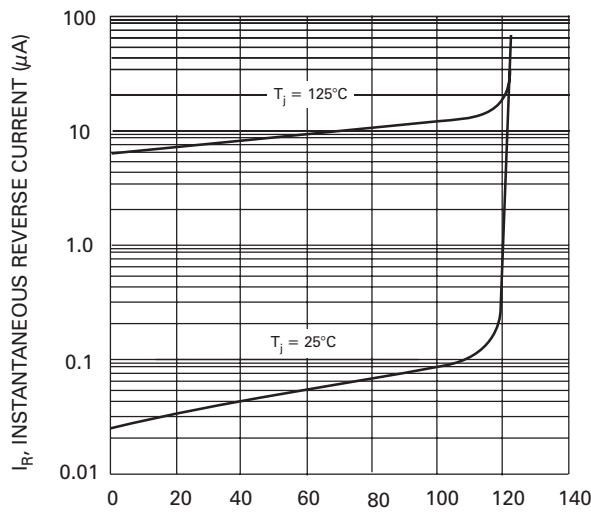
$V_{FR}$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typ Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Max Non-Repetitive Peak Forward Surge Current



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typ Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 5 Typ Reverse Characteristics (per element)

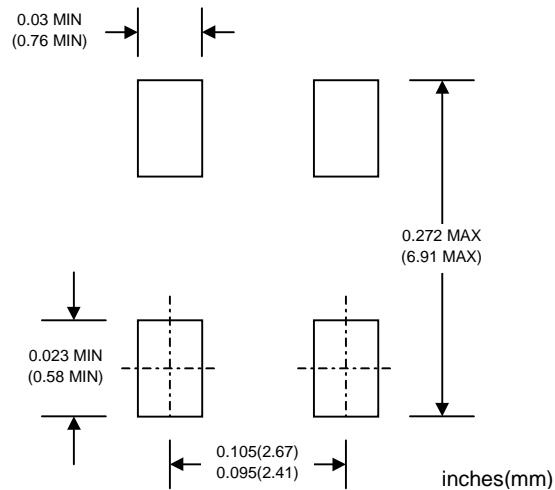
## ORDERING INFORMATION

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

♦T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



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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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