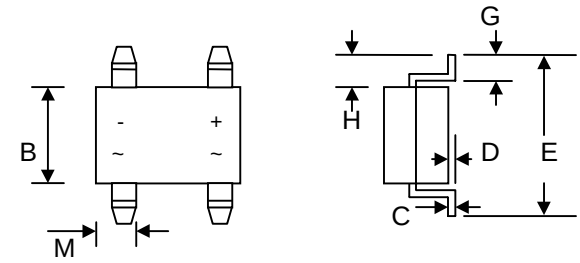
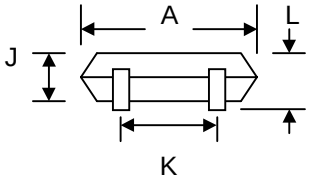
B1S – B8S

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-O





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°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°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 < 8.35ms)	I^2t	10					A^2s
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 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					°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^2 copper pads.

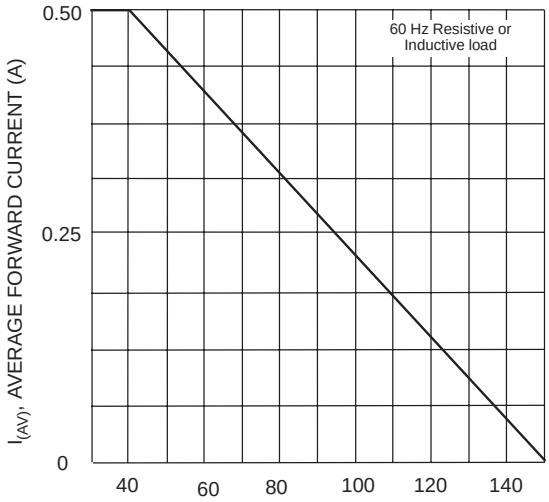


Fig. 1 Output Current Derating Curve

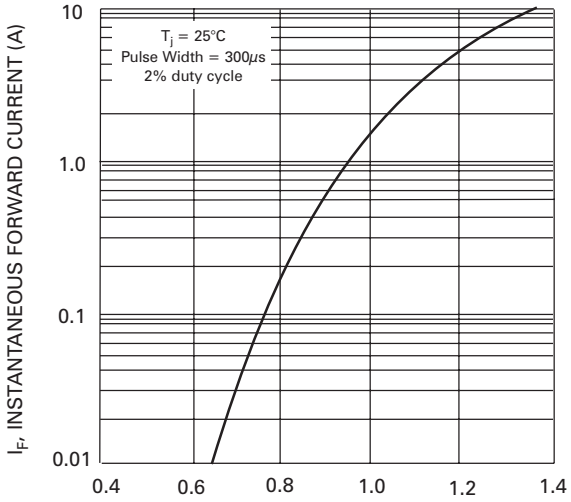


Fig. 2 Typ Forward Characteristics (per element)

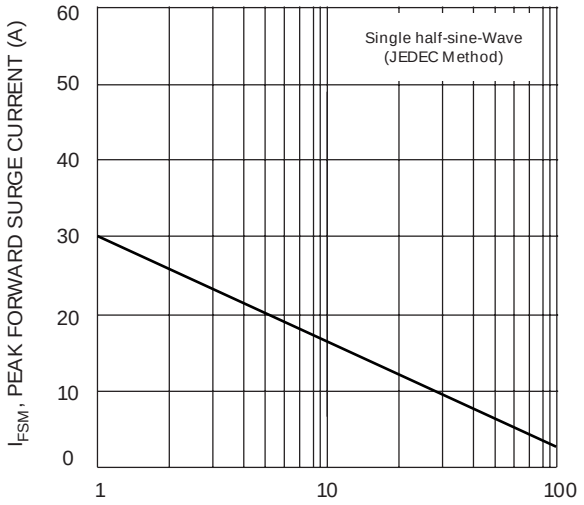


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

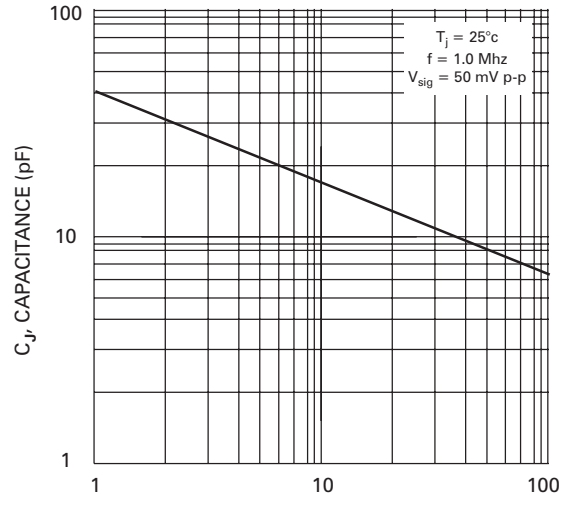


Fig. 4 Typ Junction Capacitance (per element)

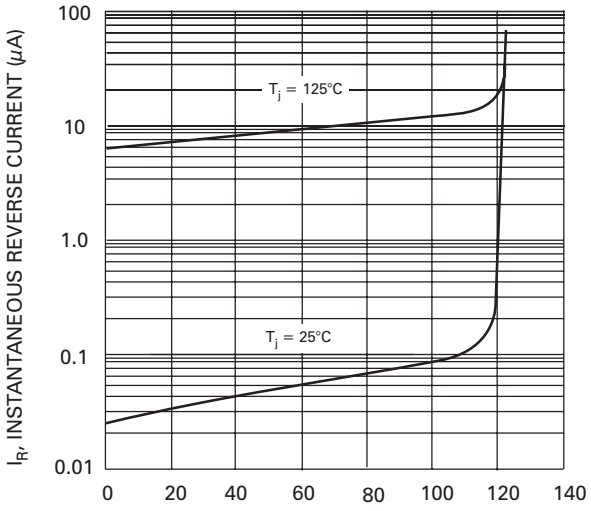


Fig. 5 Typ Reverse Characteristics (per element)

