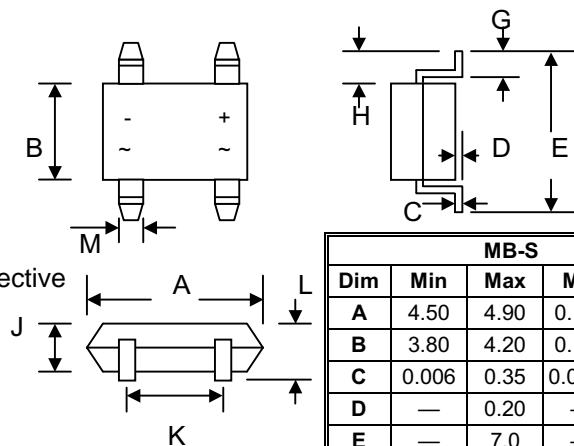


## Features

- 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
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive

## 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



MB-S				
Dim	Min	Max	Min	Max
A	4.50	4.90	0.177	0.193
B	3.80	4.20	0.150	0.165
C	0.006	0.35	0.0002	0.014
D	—	0.20	—	0.008
E	—	7.0	—	0.276
G	0.70	1.10	0.028	0.043
H	1.30	1.70	0.051	0.067
J	2.30	2.70	0.091	0.106
K	2.30	2.70	0.091	0.106
L	—	3.00	—	0.118
M	0.50	0.80	0.020	0.031
In mm			In inch	

Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

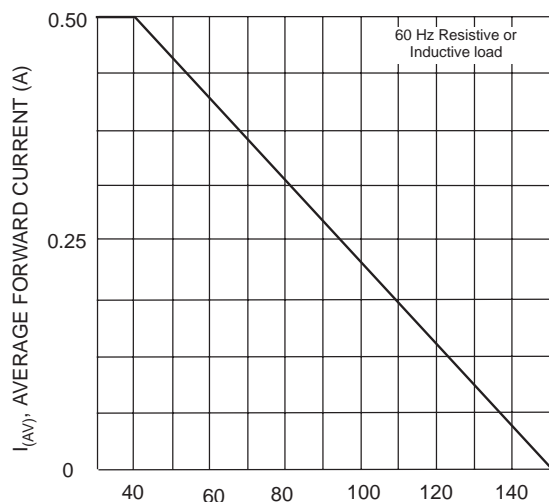
Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

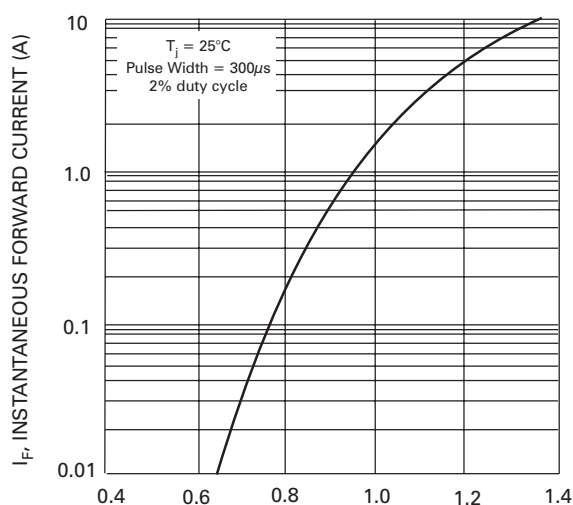
Characteristic	Symbol	MB1S-G	MB2S-G	MB4S-G	MB6S-G	MB8S-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	100	200	400	600	800	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	70	140	280	420	560	V
Average Rectified Output Current @T <sub>A</sub> = 40°C	I <sub>O</sub>	0.5					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
I <sup>2</sup> t Rating for Fusing (t < 8.35ms)	I <sup>2</sup> t	10					A <sup>2</sup> s
Forward Voltage per element @I <sub>F</sub> = 0.5A	V <sub>FM</sub>	1.0					V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>	5.0 500					μA
Typical Junction Capacitance (per leg) (Note 1)	C <sub>j</sub>	25					pF
Typical Thermal Resistance (per leg) (Note 2)	R <sub>θJA</sub>	85					K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +150					°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

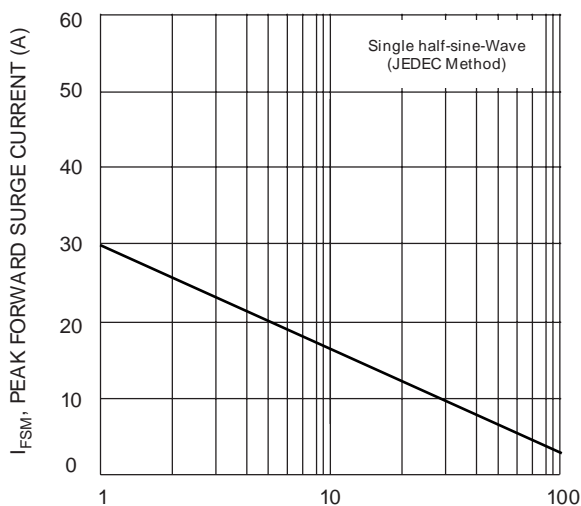
2. Thermal resistance junction to ambient mounted on PC board with 13mm<sup>2</sup> copper pads.



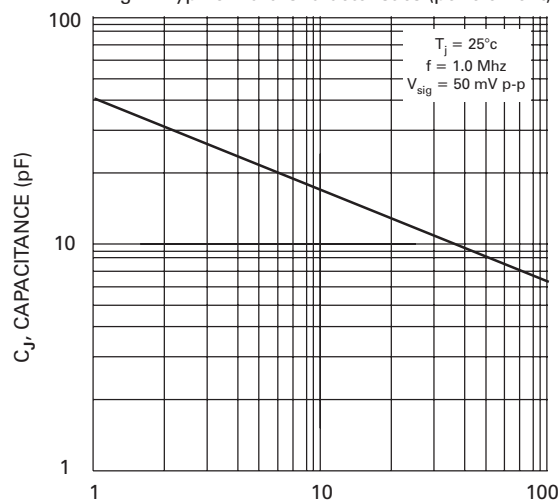
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Output Current Derating Curve



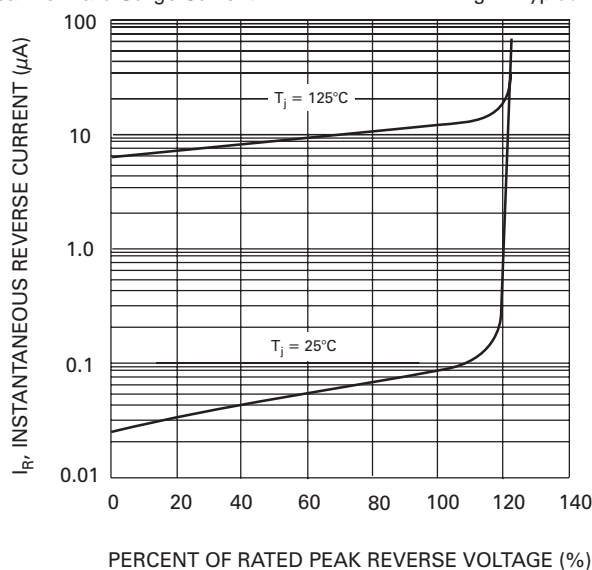
$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typ Forward Characteristics (per element)



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)

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