



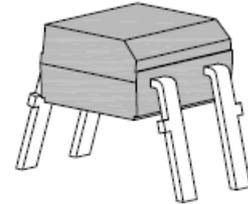
## SINGLE-PHASE BRIDGE RECTIFIER

### MB1M – MB10M

### 0.5A Glass Passivated Bridge Rectifier

#### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Plastic Material – UL Flammability 94V-0
- RoHS Compliant



**MBM**

#### Mechanical Data

<b>Case:</b>	MBM, molded plastic
<b>Terminals:</b>	Plated leads solderable per MIL-STD-202, method 208
<b>Polarity:</b>	As marked on case
<b>Mounting Position:</b>	Any
<b>Weight:</b>	0.22 grams

#### Maximum Ratings And Electrical Characteristics ( $T_{amb}=25^{\circ}\text{C}$ )

Symbol	Description	MB1M	MB2M	MB4M	MB6M	MB8M	MB10M	Unit	Conditions
<b>VRRM</b>	Max. Repetitive Peak Reverse Voltage	100	200	400	600	800	1000	V	
<b>VRMS</b>	Max. RMS Voltage	70	140	280	420	560	700	V	
<b>VDC</b>	Max. DC Blocking Voltage	100	200	400	600	800	1000	V	
<b>IF(AV)</b>	Average Rectified Output Current	0.5						A	$T_A=40^{\circ}\text{C}$ , Note 1
		0.8						A	$T_A=40^{\circ}\text{C}$ , Note 2
<b>IFSM</b>	Non-Repetitive Peak Forward Surge Current	30						A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>VF</b>	Forward Voltage per leg	1.0						V	$I_F=0.5\text{A}$



SINGLE-PHASE BRIDGE RECTIFIER

MB1M – MB10M

Symbol	Description	MB1M	MB2M	MB4M	MB6M	MB8M	MB10M	Unit	Conditions
I <sub>R</sub>	Max. Reverse DC Current At Rated DC Blocking Voltage per leg	5.0						μA	T <sub>A</sub> =25°C
		500						μA	T <sub>A</sub> =125°C
I <sub>t</sub>	Rating for Fusing (t<8.3ms)	3.73						A <sup>2</sup> s	
C <sub>J</sub>	Typical junction capacitance per leg	25						pF	V <sub>R</sub> = 4V, f=1MHz
R <sub>thJA</sub>	Typical Thermal Resistance per leg	85						°C / W	Note 1
R <sub>thJL</sub>		20							
T <sub>J</sub> ,T <sub>STG</sub>	Operating Junction and Storage Temperature Range	-55 to +150						°C	

- Note:** 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.  
 2. Mounted on aluminum substrate PC board with 1.3mm<sup>2</sup> solder pad.

Typical Characteristics Curves

Fig.1- Output Current Derating Curve

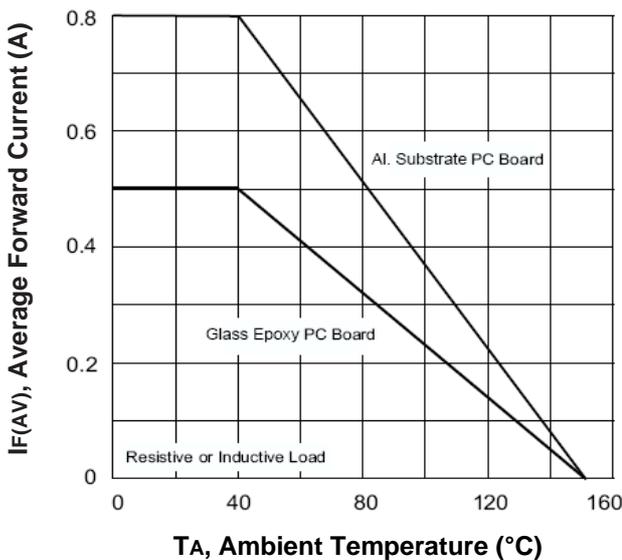
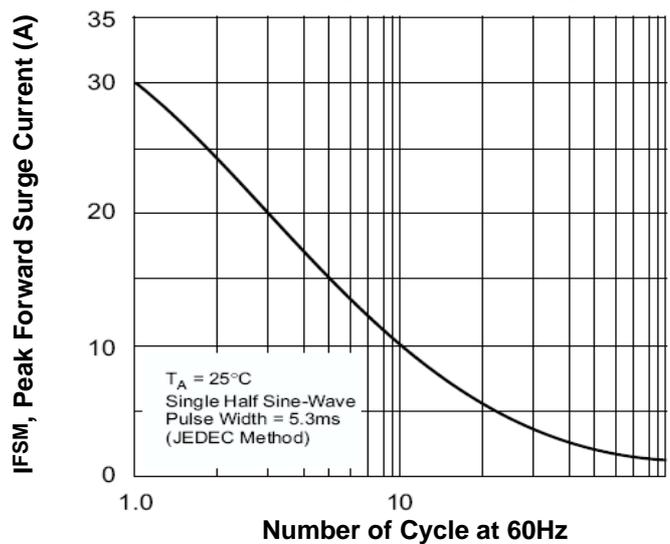


Fig.2-Max. Non-repetitive Peak Forward Surge Current Per Leg





SINGLE-PHASE BRIDGE RECTIFIER

MB1M – MB10M

Fig.3-Typical Instantaneous Forward Characteristic Per Leg

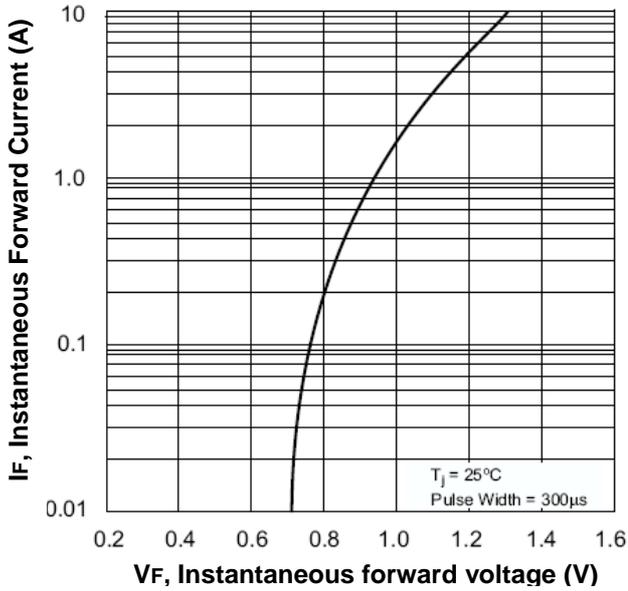


Fig.4-Typical Reverse Characteristics Per Leg

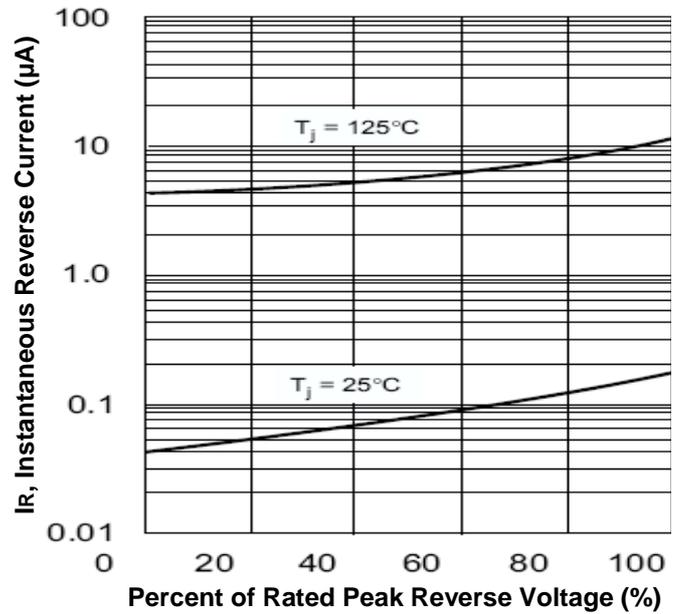


Fig.5-Typical Junction Capacitance

