## **MB Series Bridge Rectifiers**

## **Surface Mount**

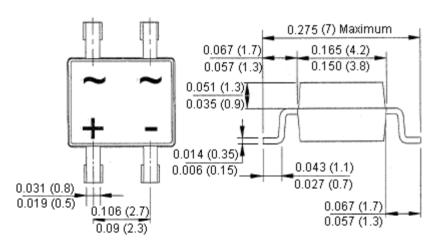


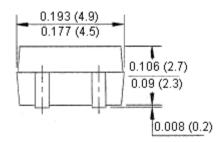


### Features:

- Rating to 1,000 V PRV
- · Ideal for printed circuit board
- · Lead tin plated copper

## Reverse Voltage - 50 to 1,000 Volts Forward Current - 0.8 Ampere





Dimensions : Inches (Millimetres)

## **Mechanical Data**

Polarity : Symbol moulded on body Weight : 0.0044 oz, 0.125 g

Mounting position : Any



# **MB Series Bridge Rectifiers**





## **Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified Single phase, half wave, 60 Hz, resistive or inductive load For capacitive load, derate current by 20%

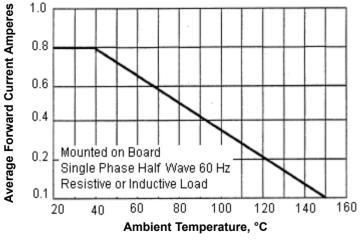
| Characteristics   | Symbol           | MB05S       | MB1S       | MB2S | MB4S | MB6S | MB8S | MB10S | Unit |
|---|------------------|-------------|------------|------|------|------|------|-------|------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub> | 50          | 100        | 200  | 400  | 600  | 800  | 1,000 |      |
| Maximum RMS Voltage   | V <sub>RMS</sub> | 35          | 70         | 140  | 280  | 420  | 560  | 700   | V    |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>  | 50          | 100        | 200  | 400  | 600  | 800  | 1,000 |      |
| Maximum Average Forward Rectified Current (Note 1) at T <sub>A</sub> = 40°C                               | I (AV)           | 0.8         |            |      |      |      |      |       | Α    |
| Peak Forward Surge Current<br>8.3 ms Single Half Sine-wave  | I <sub>FSM</sub> | 30          |            |      |      |      |      |       |      |
| Peak Forward Voltage at 0.8 A dc  | V <sub>F</sub>   | 1.1         |            |      |      |      |      | V     |      |
| Maximum DC Reverse Current at $T_J = 25^{\circ}C$<br>at Rated DC Blocking Voltage at $T_J = 125^{\circ}C$ | I <sub>R</sub>   | 5<br>500    |            |      |      |      |      |       | μА   |
| Typical Junction Capacitance Per Element (Note 2)   | СЛ               | 15          |            |      |      |      |      |       | pF   |
| Typical Thermal Resistance (Note 3)   | $R_{\theta JC}$  | 75          |            |      |      |      |      |       | °C/W |
| Operating Temperature Range   | TJ               |             | 55 to 1450 |      |      |      |      |       |      |
| Storage Temperature Range   | T <sub>STG</sub> | -55 to +150 |            |      |      |      |      |       | °C   |

Notes: 1. Mounted on P C board

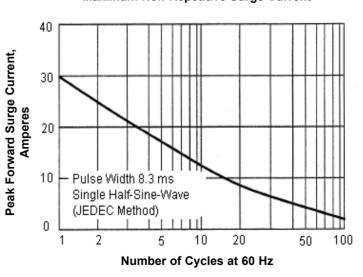
2. Measured at 1 MHz and applied reverse voltage of 4 V dc

3. Thermal resistance junction to case

# Forward Current Derating Curve



#### **Maximum Non-Repetitive Surge Current**



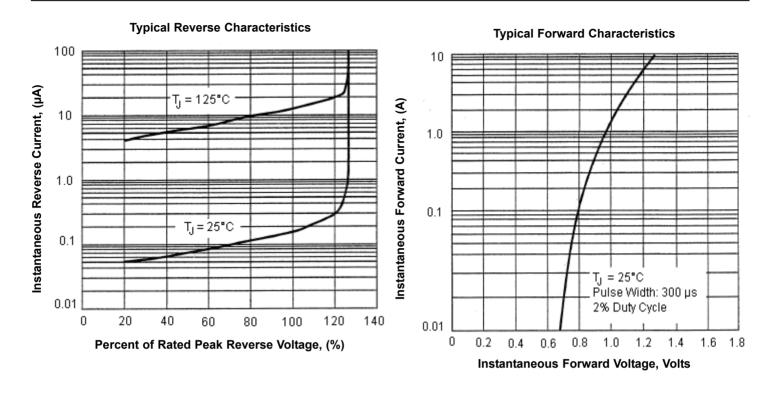
www.element14.com www.farnell.com www.newark.com



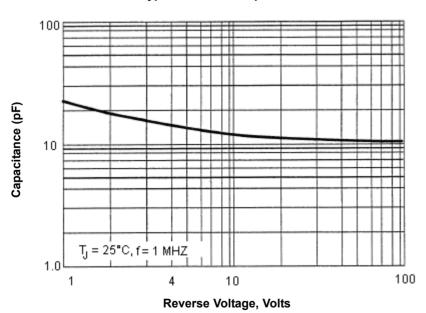
# **MB Series Bridge Rectifiers**







### **Typical Junction Capacitance**



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