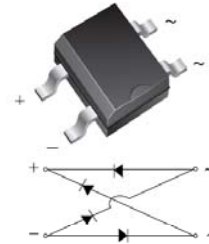
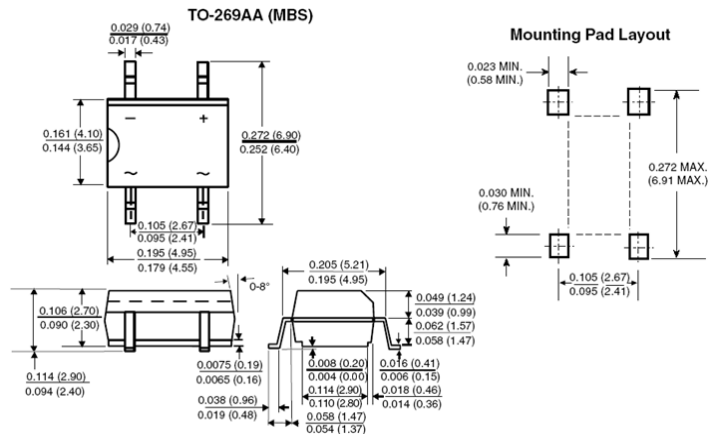


**Features**

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ High surge overload rating:35A peak
- ◆ Saves space on printed circuit boards
- ◆ High temperature soldering guaranteed:260°C/10 seconds
- ◆ Add suffix "E" for Halogen Free
- ◆ Halogen-free according to IEC 61249-2-21 definition


**Mechanical Data**

- ◆ Case:Molded plastic body over passivated junctions
- ◆ Terminals: plated leads solderable per MIL-STD-750, Method 2026
- ◆ Mounting Position:Any
- ◆ Weight:0.078 oz.,0.22g


**Maximum Ratings & Electrical Characteristics**

( $T_A=25^\circ\text{C}$  unless otherwise noted)

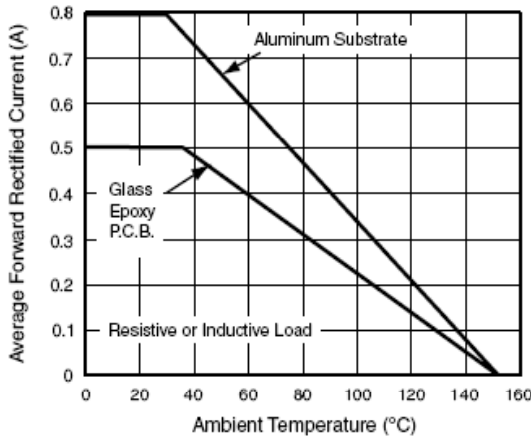
| Parameter   | Symbol          | MB2S | MB4S | MB6S                                     | MB8S | MB10S | Unit                      |
|---|-----------------|------|------|--|------|-------|---------------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 200  | 400  | 600                                      | 800  | 1000  | V                         |
| Maximum RMS voltage   | $V_{RMS}$       | 140  | 280  | 420                                      | 560  | 700   | V                         |
| Maximum DC blocking voltage   | $V_{DC}$        | 200  | 400  | 600                                      | 800  | 1000  | V                         |
| Maximum Average forward output current<br>(see Fig.1) on glass-epoxy P.C.B<br>on aluminum substrate | $I_{F(AV)}$     |      |      | 0.5 <sup>(1)</sup><br>0.8 <sup>(2)</sup> |      |       | A                         |
| Peak forward surge current 8.3 MS single HALF sine-wave superimposed on rated load (JEDEC Method)   | $I_{FSM}$       |      |      | 35                                       |      |       | A                         |
| Rating for fusig (t<8.3ms)  | $I^2t$          |      |      | 5  |      |       | A <sup>2</sup> sec        |
| Maximum instantaneous forward voltage drop per leg at 0.4A  | $V_F$           |      |      | 1.00                                     |      |       | V                         |
| Maximum DC reverse current at<br>rated DC blocking voltage per leg                                  | $I_R$           |      |      | 5<br>100                                 |      |       | $\mu\text{A}$             |
| Typical thermal resistance per leg  | $R_{\theta JA}$ |      |      | 85 <sup>(1)</sup>                        |      |       | $^\circ\text{C}/\text{W}$ |
|   | $R_{\theta JA}$ |      |      | 70 <sup>(2)</sup>                        |      |       |                           |
|   | $R_{\theta JL}$ |      |      | 20 <sup>(1)</sup>                        |      |       |                           |
| Typical junction capacitance per at 4.0V,1.0MHz   | $C_j$           |      |      | 13                                       |      |       | pF                        |
| Operating junction and storage temperature range  | $T_J, T_{STG}$  |      |      | -55 to +150                              |      |       | $^\circ\text{C}$          |

**Notes:** 1. On glass epoxy P.C.B. mounted on 0.05×0.05"(1.3×1.3mm) pads

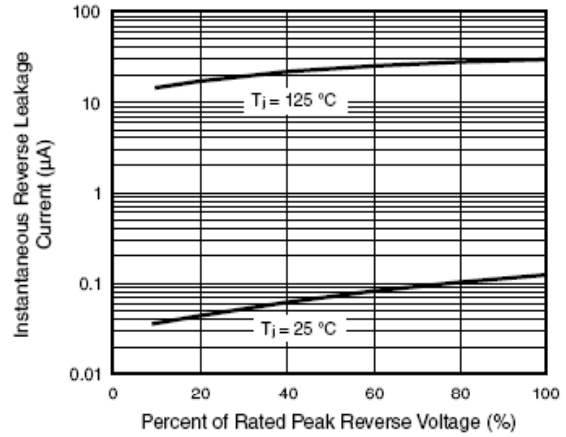
2. On aluminum substrate P.C.B.whth an area of 0.8×0.8" (20×20mm) mounted on 0.05×0.05"(1.3×1.3mm) solder pad

**Ratings and Characteristics Curves**

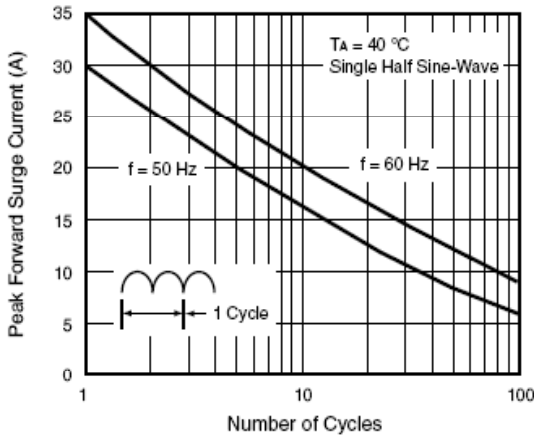
(TA = 25°C unless otherwise noted)



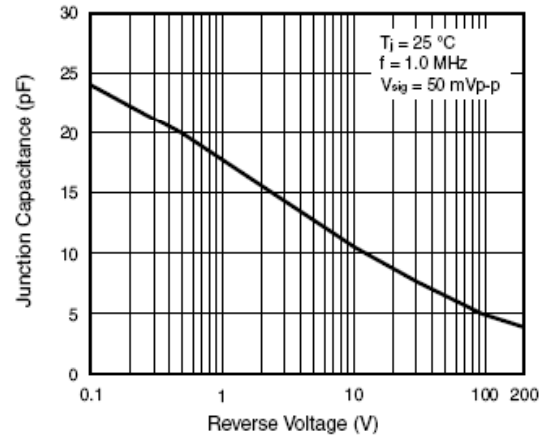
**Figure 1. Derating Curve for Output Rectified Current**



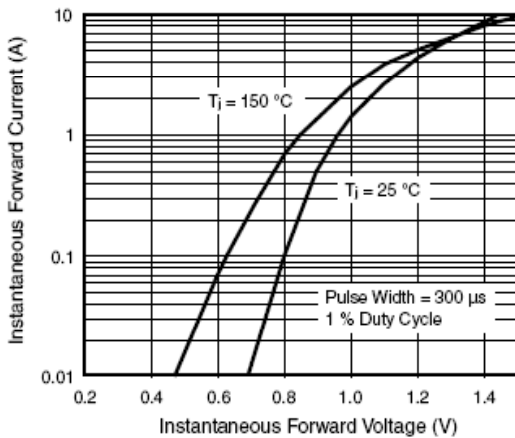
**Figure 4. Typical Reverse Leakage Characteristics Per Leg**



**Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



**Figure 5. Typical Junction Capacitance Per Leg**



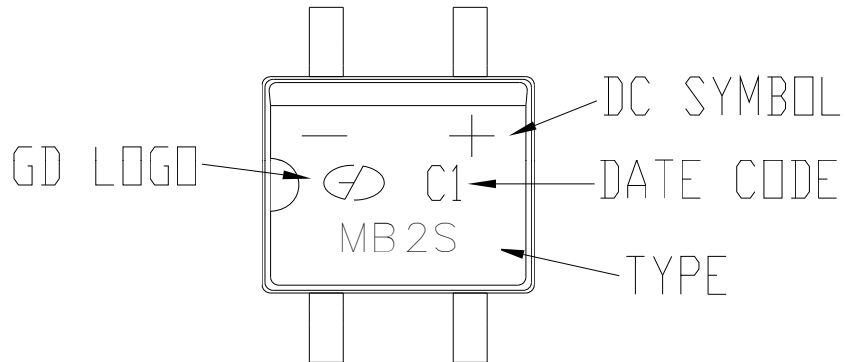
**Figure 3. Typical Forward Voltage Characteristics Per Leg**



# MB2S thru MB10S

Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier  
Reverse Voltage 200 to 1000 Volts Forward Current 0.5 Ampere

## Marking



### DATE CODE

|       |      |      |      |      |      |      |      |      |      |      |      |      |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Year  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Code  | 9    | A    | B    | C    | D    | E    | F    | G    | H    | J    | K    | 0    |
| Month | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
| Code  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | O    | N    | D    |