



## 1.2A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

### FEATURES:

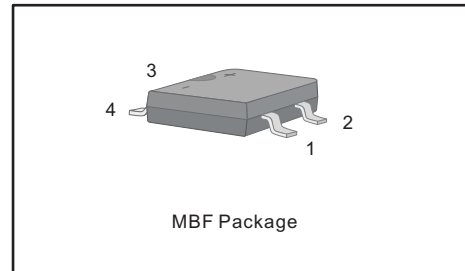
Glass Passivated Chip Junction  
Reverse Voltage - 1000 V  
Forward Current - 1.2A  
High Surge Current Capability  
Designed for Surface Mount Application

### MECHANICAL DATA

- Case: MBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 75mg 0.0026oz

### PINNING

| PIN | DESCRIPTION          |
|-----|----------------------|
| 1   | Input Pin ( ~ )      |
| 2   | Input Pin ( ~ )      |
| 3   | Output Anode ( + )   |
| 4   | Output Cathode ( - ) |



### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter                                                                                                                         | Symbols                            | GMB10F-12  | Units                |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------|----------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                                           | $V_{RRM}$                          | 1000       | V                    |
| Maximum RMS voltage                                                                                                               | $V_{RMS}$                          | 700        | V                    |
| Maximum DC Blocking Voltage                                                                                                       | $V_{DC}$                           | 1000       | V                    |
| Average Rectified Output Current<br>at $T_c = 125\text{ }^{\circ}\text{C}$                                                        | $I_O$                              | 1.2        | A                    |
| Peak Forward Surge Current 8.3 ms Single Half<br>Sine Wave Superimposed on Rated Load<br>(JEDEC Method)                           | $I_{FSM}$                          | 40         | A                    |
| Maximum Forward Voltage at 1.2 A                                                                                                  | $V_F$                              | 1.1        | V                    |
| Maximum DC Reverse Current @ $T_A=25\text{ }^{\circ}\text{C}$<br>at Rated DC Blocking Voltage @ $T_A=125\text{ }^{\circ}\text{C}$ | $I_R$                              | 5<br>80    | $\mu\text{A}$        |
| Typical Junction Capacitance ( Note1 )                                                                                            | $C_j$                              | 18         | pF                   |
| Typical Thermal Resistance ( Note2 )                                                                                              | $R_{\theta JA}$<br>$R_{\theta JC}$ | 75<br>22   | $^{\circ}\text{C/W}$ |
| Operating and Storage Temperature Range                                                                                           | $T_j, T_{stg}$                     | -55 ~ +150 | $^{\circ}\text{C}$   |

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" ( 3.81×3.81 cm ) copper pad.



Fig.1 Average Rectified Output Current Derating Curve

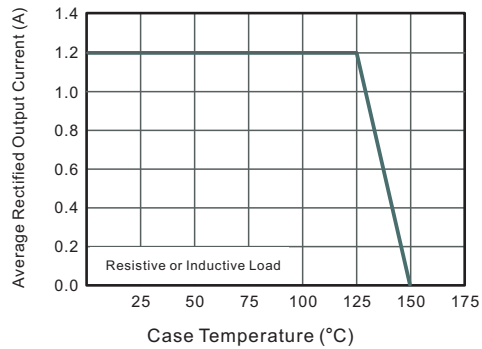


Fig.2 Typical Reverse Characteristics

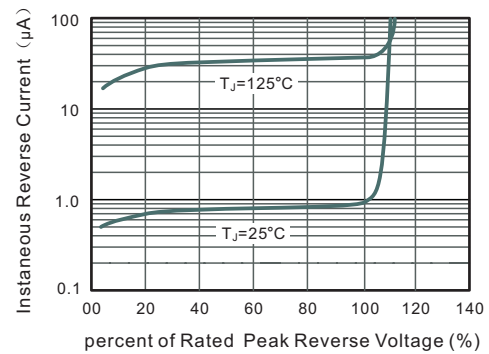


Fig.3 Typical Instantaneous Forward Characteristics

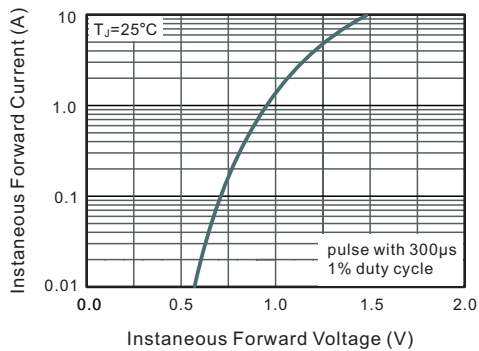


Fig.4 Typical Junction Capacitance

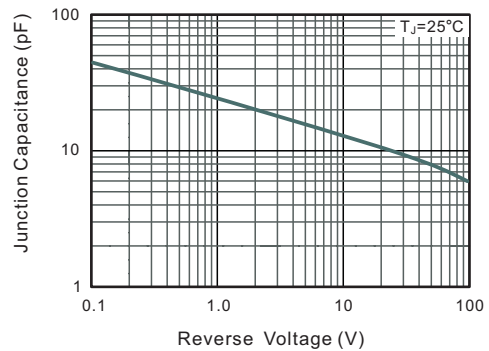
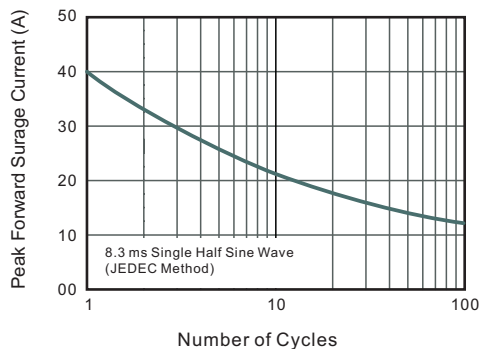


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

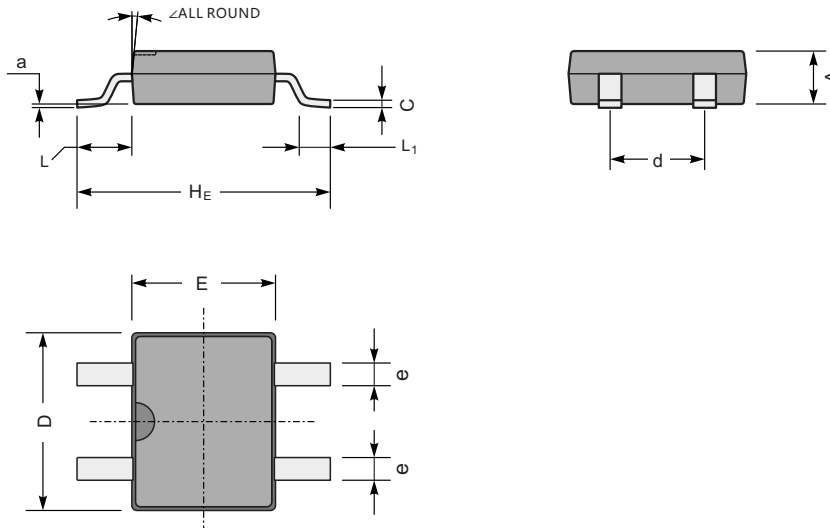




## PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

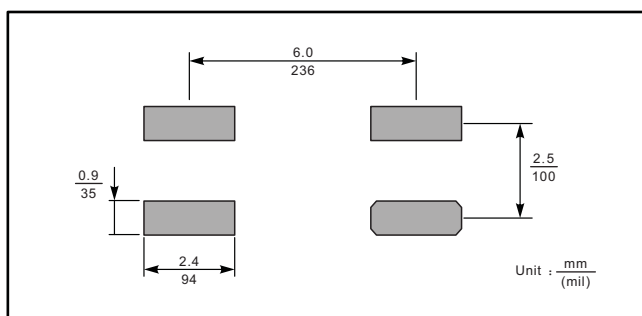
MBF



MBF mechanical data

| UNIT |     | A   | C    | D   | E   | H <sub>E</sub> | d   | e   | L   | L <sub>1</sub> | a   | ∠  |
|------|-----|-----|------|-----|-----|----------------|-----|-----|-----|----------------|-----|----|
| mm   | max | 1.6 | 0.22 | 5.0 | 4.1 | 7.0            | 2.7 | 0.8 | 1.7 | 1.1            | 0.2 | 7° |
|      | min | 1.2 | 0.15 | 4.5 | 3.6 | 6.4            | 2.3 | 0.5 | 1.3 | 0.5            | —   |    |
| mil  | max | 63  | 8.7  | 197 | 161 | 276            | 106 | 31  | 67  | 43             | 8   |    |
|      | min | 47  | 5.9  | 177 | 142 | 252            | 91  | 20  | 51  | 20             | —   |    |

## The recommended mounting pad size



## Marking

| Type number | Marking code |
|-------------|--------------|
| GMB10F-12   | G12M10       |
|             |              |

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