

0.8A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

**FEATURES:**

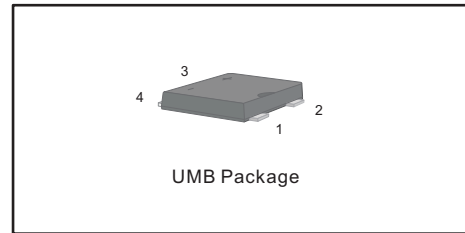
- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Average Rectified Output Current- 0.8 A
- High Surge Current Capability
- Designed for Surface Mount Application

**MECHANICAL DATA**

- Case: UMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 45mg/0.0016oz

**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.

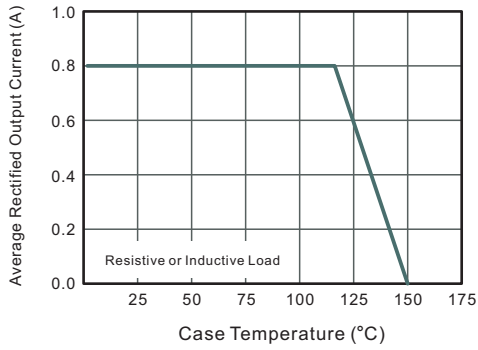
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter  | Symbols         | UM1B       | UM2B | UM4B | UM6B | UM8B | UM10B | Units              |
|--|-----------------|------------|------|------|------|------|-------|--------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$       | 100        | 200  | 400  | 600  | 800  | 1000  | V                  |
| Maximum RMS voltage  | $V_{RMS}$       | 70         | 140  | 280  | 420  | 560  | 700   | V                  |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 100        | 200  | 400  | 600  | 800  | 1000  | V                  |
| Average Rectified Output Current at $T_c = 115\text{ }^\circ\text{C}$  | $I_o$           | 0.8        |      |      |      |      |       | A                  |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)                                    | $I_{FSM}$       | 25         |      |      |      |      |       | A                  |
| Forward Voltage per element<br>@ $I_F = 0.4\text{A}$<br>@ $I_F = 0.8\text{A}$  | $V_F$           | 1.0<br>1.1 |      |      |      |      |       | V                  |
| Maximum DC Reverse Current at Rated DC Blocking Voltage<br>@ $T_a = 25\text{ }^\circ\text{C}$<br>@ $T_a = 125\text{ }^\circ\text{C}$ | $I_R$           | 3<br>30    |      |      |      |      |       | $\mu\text{A}$      |
| Typical Junction Capacitance ( Note1 )   | $C_j$           | 13         |      |      |      |      |       | pF                 |
| Typical Thermal Resistance ( Note2 )   | $R_{\theta JA}$ | 110        |      |      |      |      |       | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range  | $T_j, T_{stg}$  | -55 ~ +150 |      |      |      |      |       | $^\circ\text{C}$   |

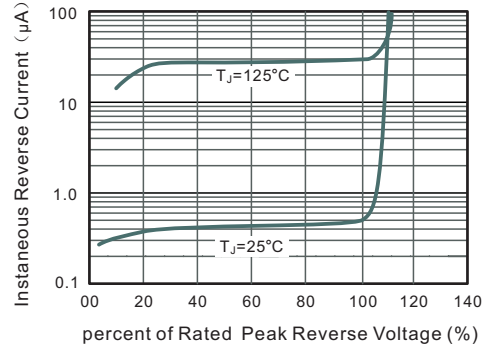
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. P.C.B. mounted with 4×1.5"×1.5" ( 3.81×3.81 cm ) copper pad areas.

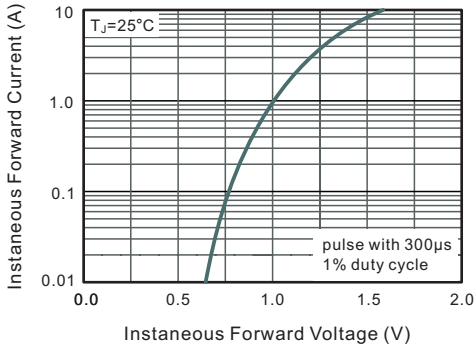
**Fig.1 Average Rectified Output Current Derating Curve**



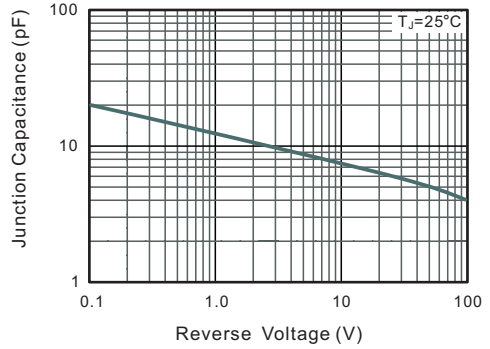
**Fig.2 Typical Reverse Characteristics**



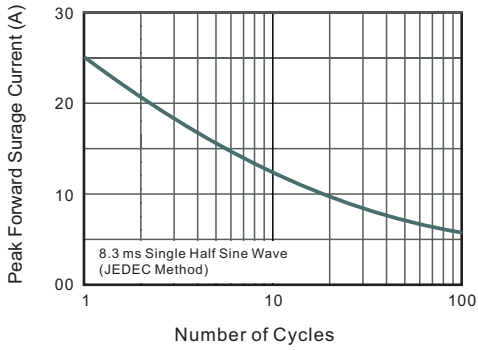
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



**PACKAGE OUTLINE**

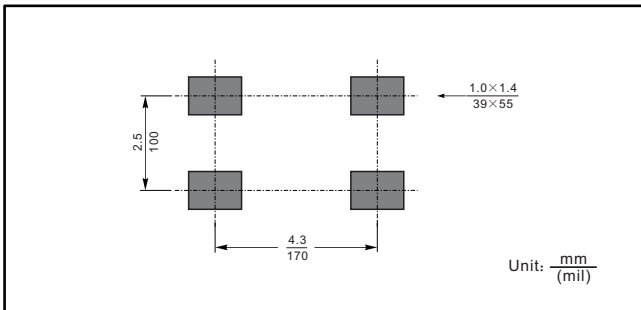
Plastic surface mounted package; 4 leads

U M B

**UMB mechanical data**

| UNIT |     | A   | C    | D   | E   | H <sub>E</sub> | g    | d   | e    | $\angle$ |
|------|-----|-----|------|-----|-----|----------------|------|-----|------|----------|
| mm   | max | 1.2 | 0.20 | 3.8 | 4.0 | 5.1            | 0.82 | 2.7 | 0.70 | 7°       |
|      | min | 1.0 | 0.12 | 3.4 | 3.6 | 4.6            | 0.51 | 2.3 | 0.51 |          |
| mil  | max | 47  | 7.9  | 150 | 157 | 201            | 32   | 106 | 28   |          |
|      | min | 39  | 4.7  | 134 | 142 | 181            | 20   | 91  | 20   |          |

**The recommended mounting pad size**



**Marking**

| Type number | Marking code |
|-------------|--------------|
| UM1B        | UM1B         |
| UM2B        | UM2B         |
| UM4B        | UM4B         |
| UM6B        | UM6B         |
| UM8B        | UM8B         |
| UM10B       | UM10B        |