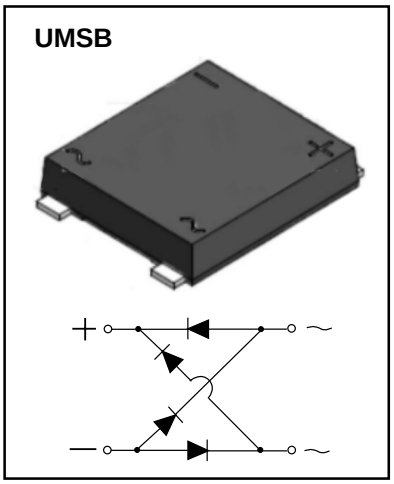
## 2A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER




### FEATURES:

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 2.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

### MECHANICAL DATA

- Case: UMSB
- Terminals: Solderable per MIL-STD-750, Method 2026

### 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 | MSB20B | MSB20D | MSB20G | MSB20J | MSB20K | MSB20M | 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 | $I_O$ | 2.0 | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$ | 50 | | | | | | A |
| Maximum Forward Voltage at 2.0 A | $V_F$ | 1.1 | | | | | | V |
| Maximum DC Reverse Current @$T_A$=25 °C<br>at Rated DC Blocking Voltage @$T_A$=125 °C | $I_R$ | 5<br>100 | | | | | | μA |
| Typical Junction Capacitance ( Note1 ) | $C_j$ | 30 | | | | | | pF |
| Operating and Storage Temperature Range | $T_j$, $T_{stg}$ | -55 ~ +150 | | | | | | °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**

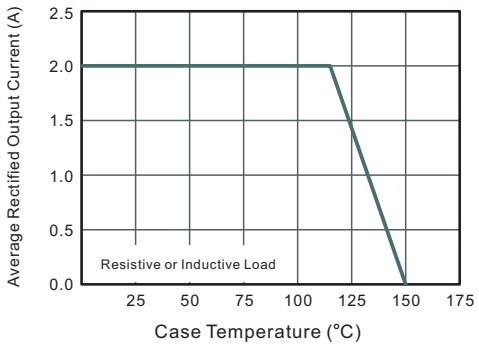



**Fig.2 Typical Reverse Characteristics**

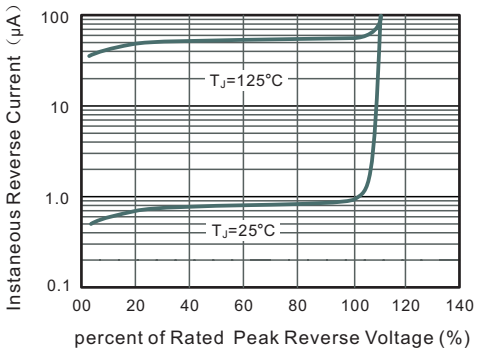



**Fig.3 Typical Instaneous Forward Characteristics**

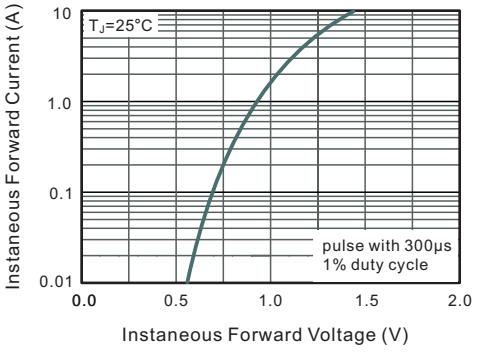



**Fig.4 Typical Junction Capacitance**

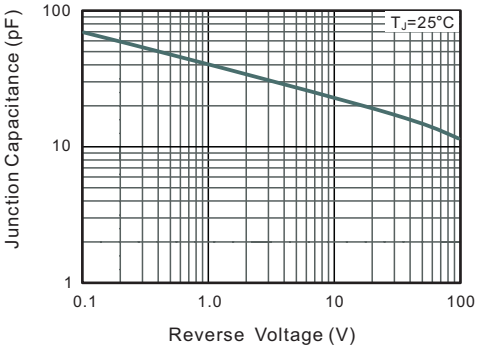
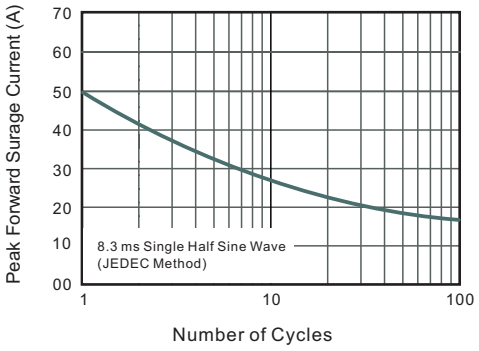
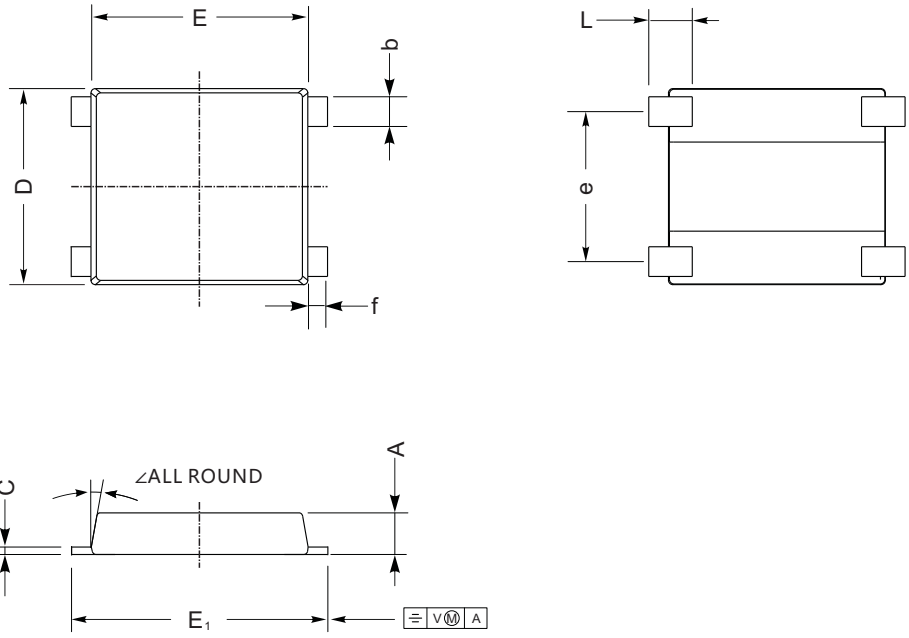



**Fig.5 Maximum Non-Repetitive Peak Forward Surage Current**



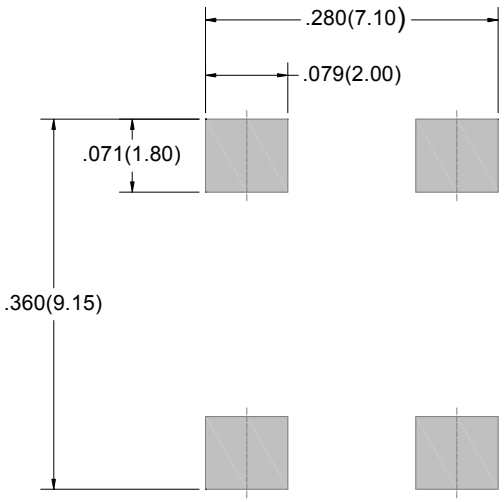
## UMSB Package Outline Dimensions




UMSB mechanical data

| UNIT | | A | C | D | E | $E_1$ | L | e | b | f | ∠ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | max | 1.5 | 0.29 | 7.0 | 7.6 | 8.9 | 1.6 | 5.3 | 1.15 | 0.8 | 10° |
| | min | 1.3 | 0.17 | 6.2 | 7.1 | 8.4 | 1.0 | 4.9 | 0.95 | 0.6 | |
| mil | max | 59 | 12 | 276 | 299 | 350 | 55 | 209 | 45 | 31.5 | |
| | min | 51 | 7 | 244 | 280 | 331 | 39 | 193 | 37 | 24 | |

## UMSB Suggested Pad Layout




**Note:**
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.