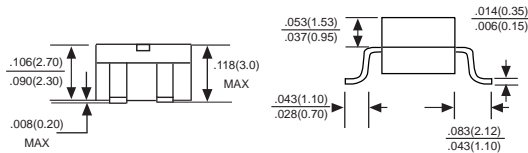
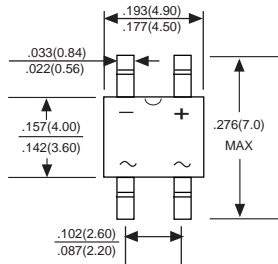




# UMB2S THRU UMB10S

GLASS PASSIVATED ULTRA FAST RECOVERY BRIDGE RECTIFIERS  
Voltage Range - 200 to 1000 Volts Current - 0.5/0.8 Ampere

## MBS



Dimensions in inches and (millimeters)

## FEATURES

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs., (2.3kg) tension
- ◆ Small size, simple installation
- ◆ Leads solderable per MIL-STD-202, Method 208
- ◆ High surge current capability
- ◆ Glass passivated chip junction
- ◆ Green compound(halogen&Sb<sub>2</sub>O<sub>3</sub> free)

## MECHANICAL DATA

**Case:** Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** Polarity symbols marked on case

**Mounting Position:** Any

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

| MDD Catalog Number  | SYMBOLS                              | UMB2S       | UMB4S | UMB6S | UMB8S | UMB10S | UNITS    |
|---|--------------------------------------|-------------|-------|-------|-------|--------|----------|
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>                     | 200         | 400   | 600   | 800   | 1000   | V        |
| Maximum RMS voltage   | V <sub>RMS</sub>                     | 140         | 280   | 420   | 560   | 700    | V        |
| Maximum DC blocking voltage   | V <sub>DC</sub>                      | 200         | 400   | 600   | 800   | 1000   | V        |
| Maximum average forward rectified current<br>On glass-epoxy P.C.B.(Note1)<br>On aluminum substrate(Note2) | I <sub>F(AV)</sub>                   | 0.5<br>0.8  |       |       |       |        | A        |
| Peak forward surge current,<br>8.3ms single half sine-wave superimposed on<br>rated load                  | I <sub>FSM</sub>                     | 30          |       |       |       |        | A        |
| Maximum instantaneous forward voltage drop<br>per leg at 0.4A   | V <sub>F</sub>                       | 1.0         | 1.4   | 1.7   |       |        | V        |
| Maximum DC reverse current<br>at rated DC blocking voltage  | I <sub>R</sub>                       | 5.0<br>500  |       |       |       |        | µA<br>µA |
| Typical thermal resistance(NOTE 3)  | R <sub>θJL</sub><br>R <sub>θJA</sub> | 28<br>85    |       |       |       |        | °C/W     |
| Maximum reverse recovery time (NOTE 4)  | t <sub>rr</sub>                      | 50          |       | 75    |       |        | ns       |
| Operating temperature range   | T <sub>J</sub>                       | -55 to +150 |       |       |       |        | °C       |
| storage temperature range   | T <sub>STG</sub>                     | -55 to +150 |       |       |       |        | °C       |

NOTES:1.On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads.

2.On aluminum substrate P.C.B. with an area of 0.8"x0.8"(20x20mm) mounted on 0.05X0.05"(1.3X1.3mm) solder pad.

3.Thermal resistance form junction to ambient and junction to lead mounted on P.C.B. with 0.2X0.2"(5X5mm) copper pads.

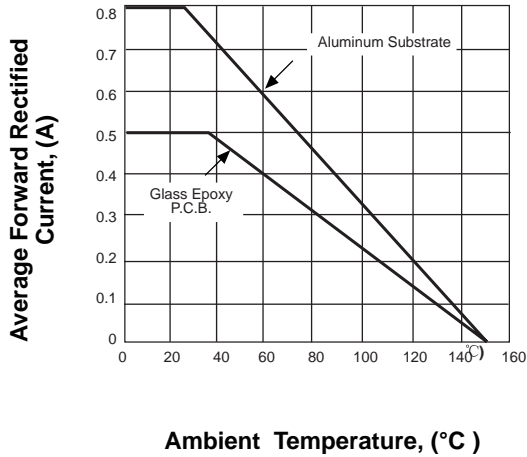
4.Reverse recovery condition I<sub>F</sub>=0.5A,I<sub>R</sub>=1.0A,I<sub>rr</sub>=0.25A.

Download from alldatasheet.com

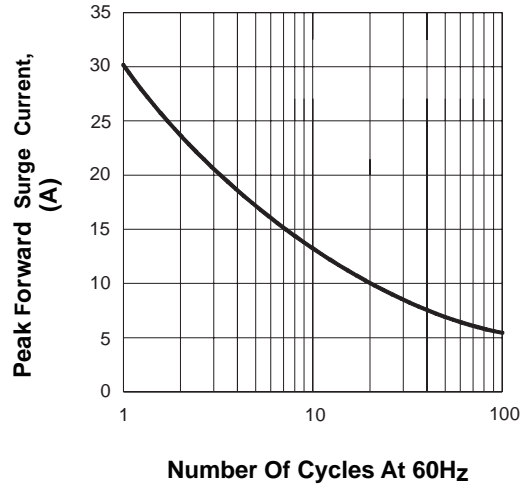


# RATINGS AND CHARACTERISTIC CURVES UMB2S THRU UMB10S

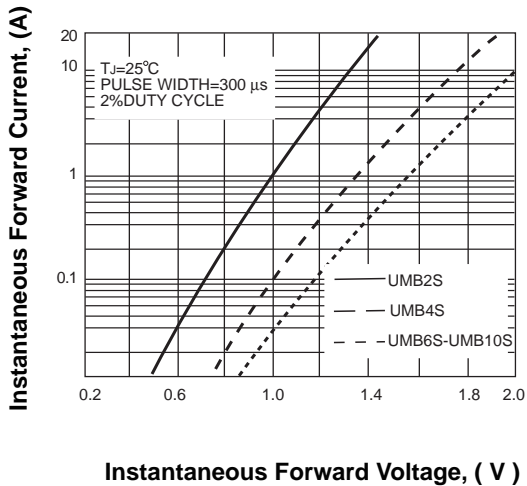
**FIG.1 FORWARD DERATING CURVE**



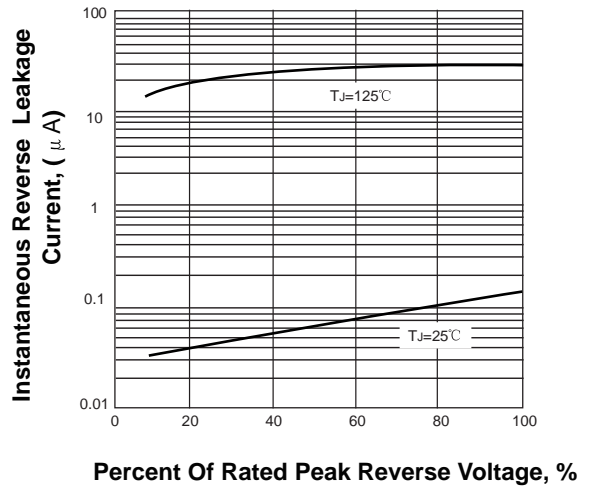
**FIG.2 PEAK FORWARD SURGE CURRENT**



**FIG.3 TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL REVERSE CHARACTERISTICS**



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

