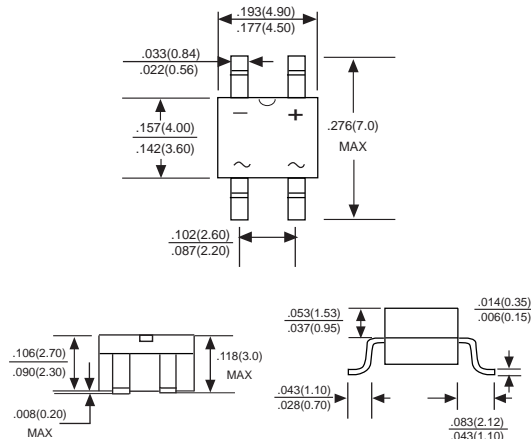




# UMB2S THRU UMB10S

**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%.

TWGMC 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 On glass-epoxy P.C.B.(Note1) On aluminum substrate(Note2)	I <sub>F(AV)</sub>	0.5 0.8					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30					A
Maximum instantaneous forward voltage drop per leg at 0.4A	V <sub>F</sub>	1.0	1.4	1.7			V
Maximum DC reverse current      T <sub>A</sub> =25°C at rated DC blocking voltage      T <sub>A</sub> =125°C	I <sub>R</sub>	5.0 500					uA uA
Typical thermal resistance(NOTE 3)	R <sub>θJL</sub>	28					°C/W
	R <sub>θJA</sub>	85					
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 from junction to ambient and junction to lead mounted on P.C.B. with 0.2X0.2"(5X5mm) copper pads.

4.Reverse recovery condition  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $t_{rr}=0.25\text{A}$ .

## RATINGS AND CHARACTERISTIC CURVES UMB2S THRU UMB10S

FIG.1 FORWARD DERATING CURVE

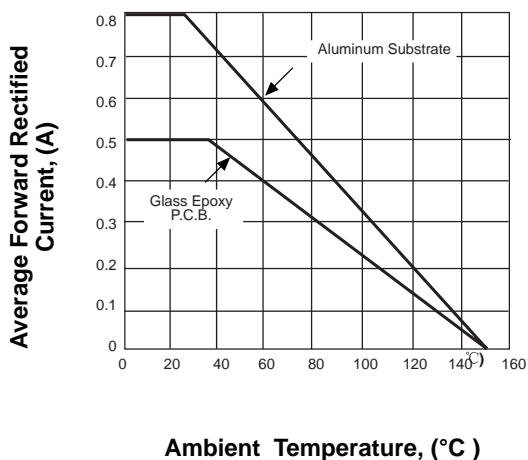


FIG.2 PEAK FORWARD SURGE CURRENT

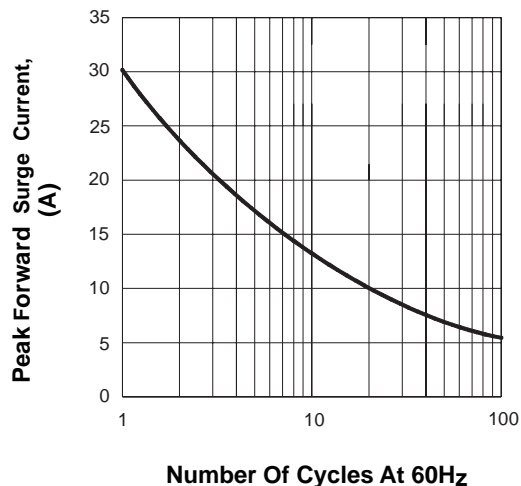


FIG.3 TYPICAL FORWARD CHARACTERISTICS

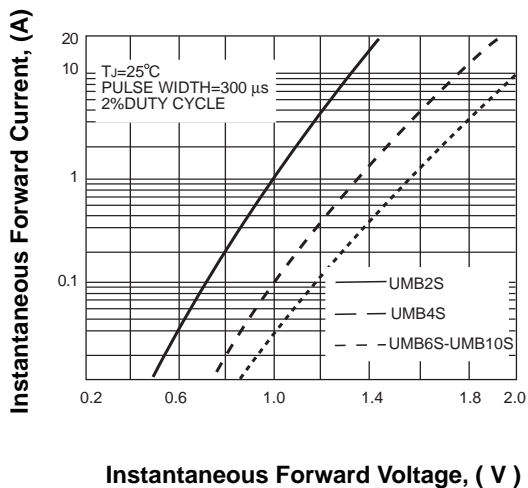
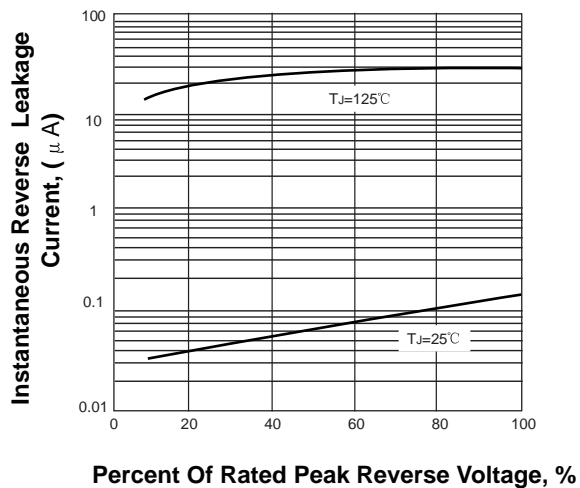


FIG.4 TYPICAL REVERSE CHARACTERISTICS



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