



# UMB1F THRU UMB10F

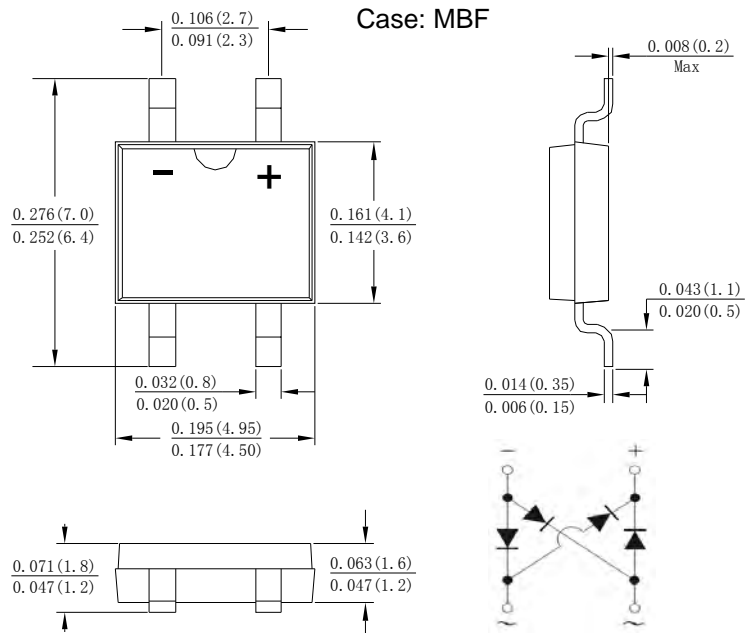
Single Phase 0.8AMP Ultra Fast Glass Passivated Bridge Rectifier

## Features

- Glass Passivated Die Construction
- Low leakage
- Ideal for printed circuit board
- Surge overload rating-30A peak
- Designed for Surface Mount Application
- Plastic Material-UL Flammability 94V-0

## Mechanical Data

- Case: MB-F, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version,



dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	UMB1F	UMB2F	UMB4F	UMB6F	UMB8F	UMB10F	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
	V <sub>RWM</sub>							
	V <sub>DC</sub>							
RMS Reverse Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T <sub>C</sub> =100℃ (Note 2)@T <sub>C</sub> =100℃	I <sub>F(AV)</sub>	0.5 0.8						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30						A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	3.735						A <sup>2</sup> s
Forward Voltage per element @I <sub>F</sub> =1.0A	V <sub>FM</sub>	1.0		1.3	1.7			V
Peak Reverse Current @T <sub>J</sub> =25℃ At Rated DC Blocking Voltage @T <sub>J</sub> =125℃	I <sub>R</sub>	5.0 100						uA
Maximum reverse recovery time (Note 3)	T <sub>RR</sub>	50			75			ns
Typical Junction Capacitance (Note4)	C <sub>J</sub>	13						pF
Typical Thermal Resistance	R <sub>θJA</sub>	60						℃/W
	R <sub>θJL</sub>	16						
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55to+150						℃

Note:1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2. Mounted on aluminum substrate PC board with 1.3mm<sup>2</sup> solder pad.

3. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

4. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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Fig. 1 Output Current Derating Curve

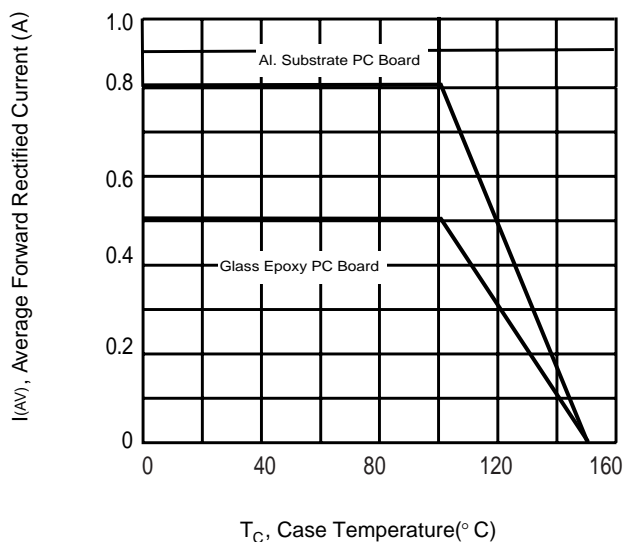


Fig. 2 Typical Forward Characteristics

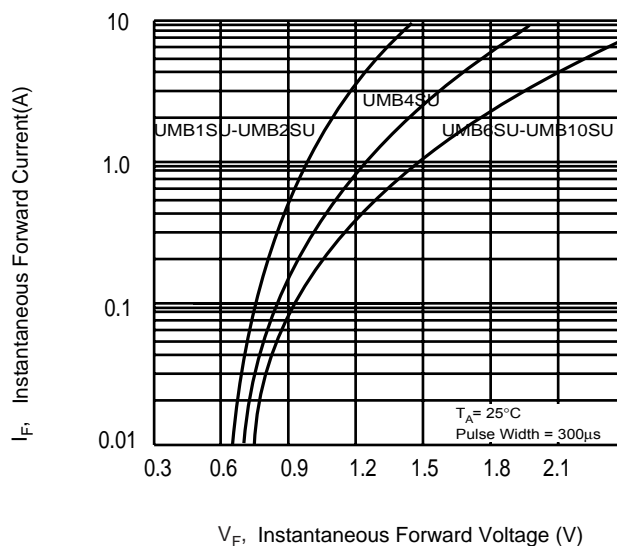


Fig.3 Maximum Peak Forward Surge Current

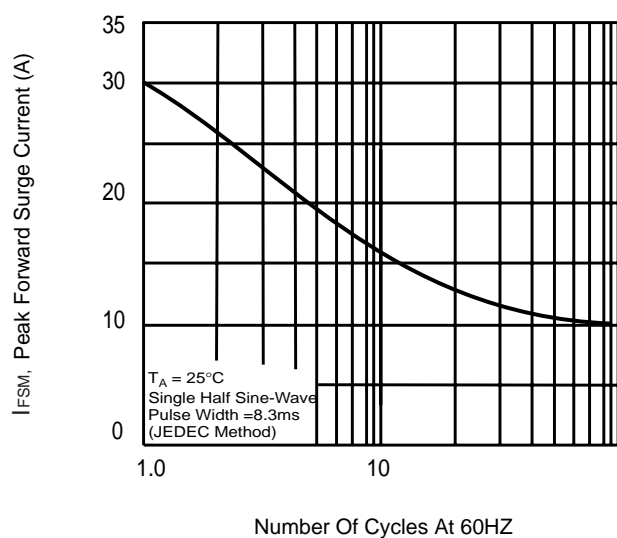


Fig. 4 Typical Junction Capacitance

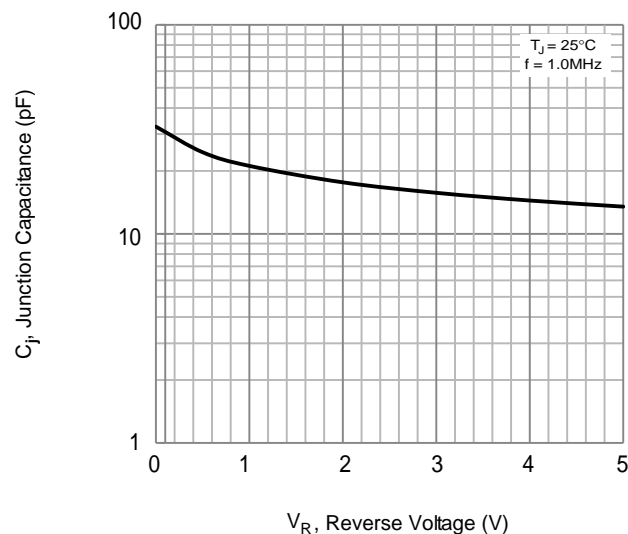


Fig.5 Typical Reverse Characteristics

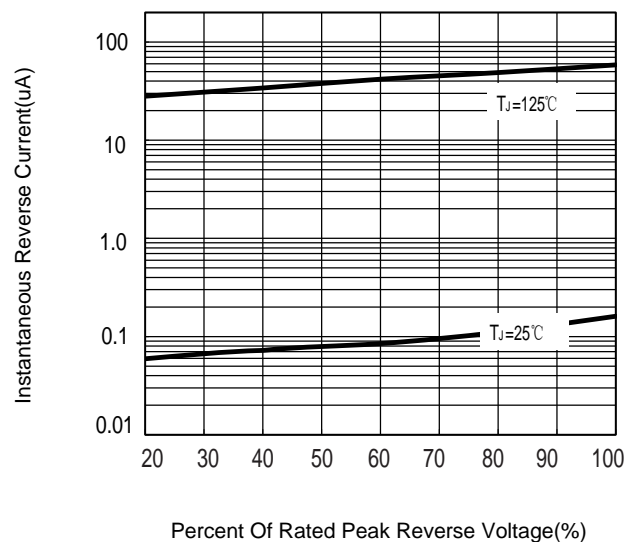
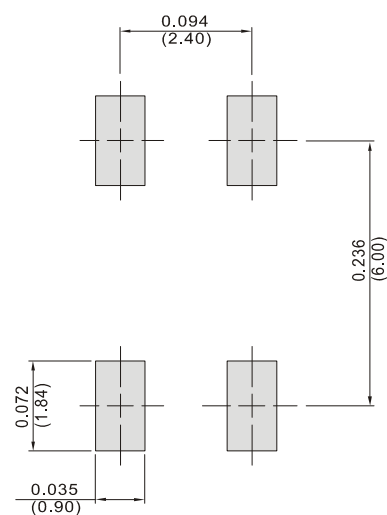


Fig.6 Mounting Pad Layout





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