UMB1F THRU UMB10F

SINGLE PHASE 0.8AMPULTRA FAST GLASS PASSIVATED BRIDGE RECTIFIER

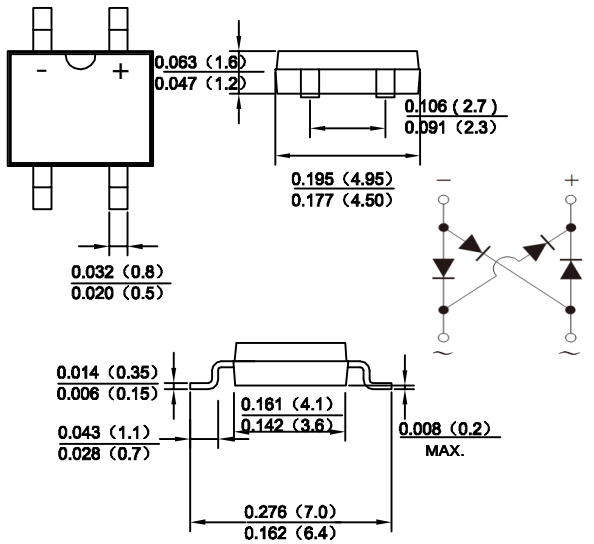
Features

- 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,

MBF



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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_{RRM} V_{RWM} V_{DC}	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T_C=100℃ (Note 2)@T_C=100℃	IF(AV)	0.5 0.8						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30						A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	3.735						A^2s
Forward Voltage per element @IF=1.0A	V_{FM}	1.0		1.3		1.7		V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	5.0 200						uA
Maximum reverse recovery time (Note 3)	T_{RR}	50			75			ns
Typical Junction Capacitance per leg (Note4)	C_J	13						pF
Typical Thermal Resistance per leg	$R_{\theta JA}$ $R_{\theta JL}$	60 16						℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150						℃

Note:1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.
2. Mounted on aluminum substrate PC board with 1.3mm^2 solder pad.
3. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=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

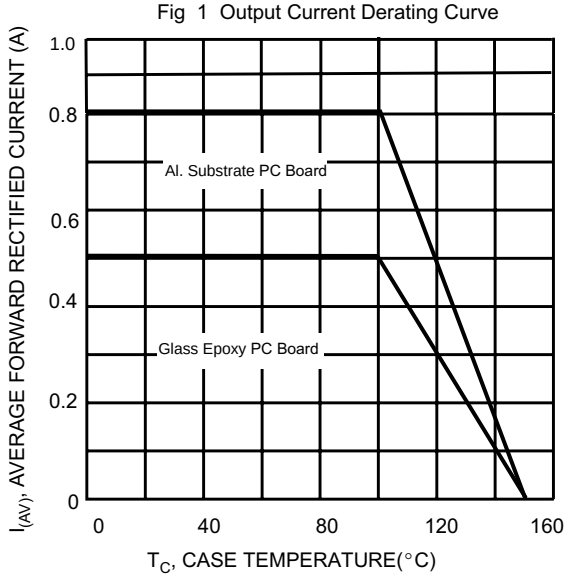


Fig. 2 Typical Forward Characteristics (per leg)

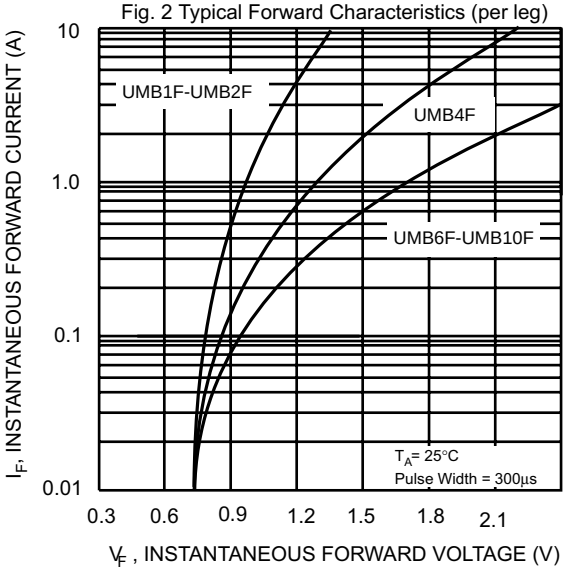


Fig. 3 Maximum Peak Forward Surge Current (per leg)

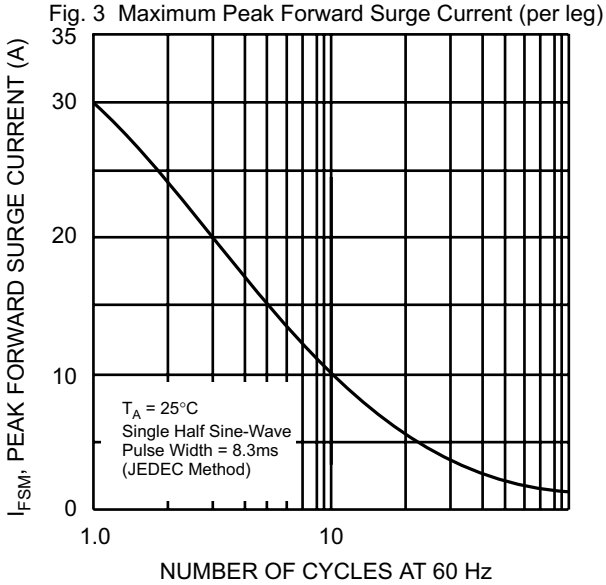


Fig. 4 Typical Junction Capacitance

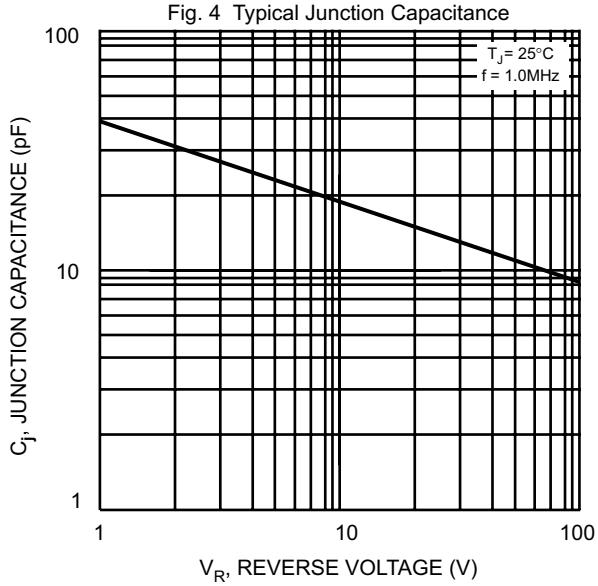


FIG.5 TYPICAL REVERSE CHRACTERISTICS

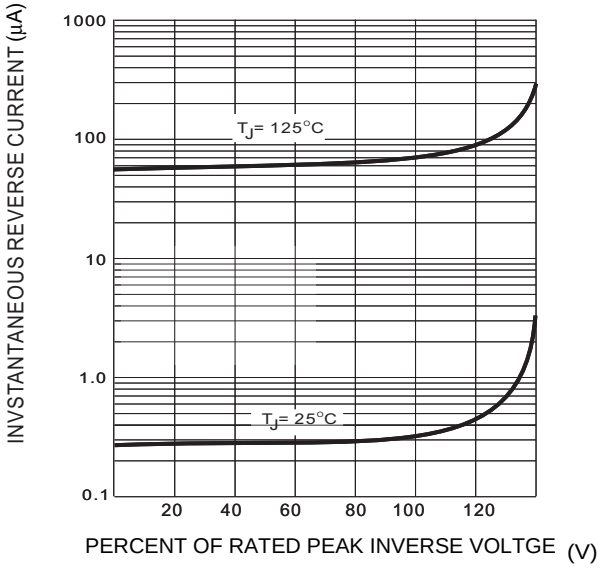
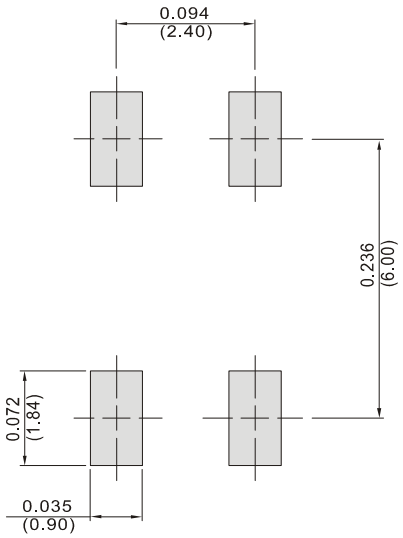


FIG.6 MOUNTING PAD LAYOUT



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