

UMB1M THRU UMB10M

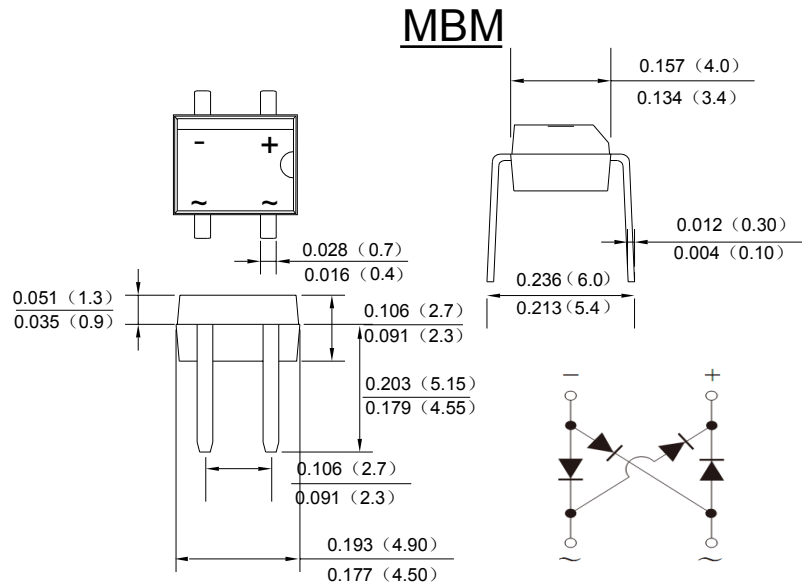
SINGLE PHASE 0.8AMP ULTRA FAST GLASS PASSIVATED BRIDGE RECTIFIER

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:Reliable low cost construction utilizing molded plastic technique
- Terminals:Plated Leads Solderable per MIL-STD-202,Method208
- Polarity:As Marked on Case
- Mounting Position:Any
- Marking:Type Number



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	UMB1M	UMB2M	UMB4M	UMB6M	UMB8M	UMB10M	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}							
Working Peak Reverse Voltage	V_{RWM}	100	200	400	600	800	1000	V
DC Blocking Voltage	V_{DC}							
RMS Reverse Voltage	V_{RMS}	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_c=100^\circ C$ (Note 2)@ $T_c=100^\circ C$	$I_F(AV)$			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 @ $I_F=0.8A$	V_{FM}	1.0		1.3		1.7		V
Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R			5.0		200		μA
Maximum reverse recovery time (Note 3)	T_{RR}		50			75		ns
Typical Junction Capacitance per leg (Note 4)	C_J			13				pF
Typical Thermal Resistance per leg	$R_{\theta JA}$			60				$^\circ C/W$
	$R_{\theta JL}$			16				
Operating and Storage Temperature Range	T_J, T_{STG}			-55to+150				$^\circ C$

Note:1. Mounted on glass epoxy PC board with 1.3mm² solder pad.

2. Mounted on aluminum substrate PC board with 1.3mm² solder pad.

3. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

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

Fig. 1 Output Current Derating Curve

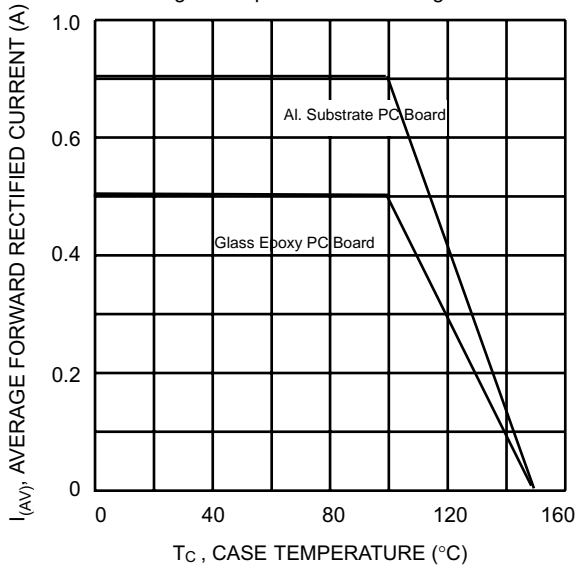


Fig. 2 Typical Forward Characteristics (per leg)

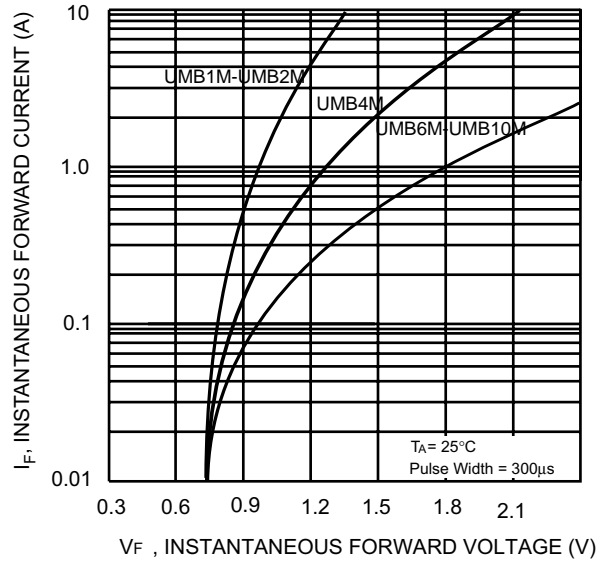


Fig. 3 Maximum Peak Forward Surge Current (per leg)

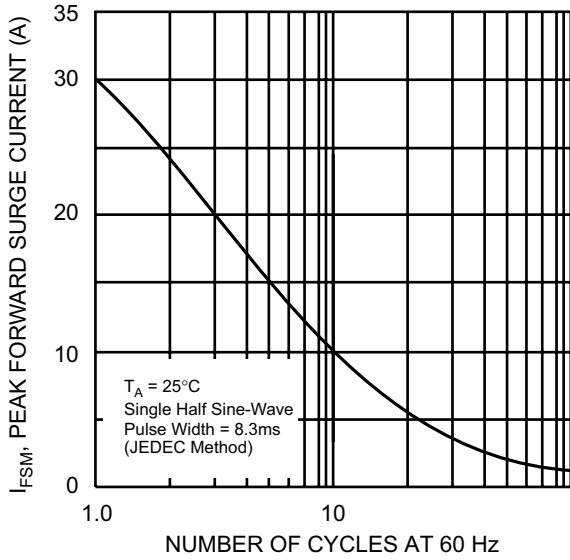


Fig. 4 Typical Junction Capacitance

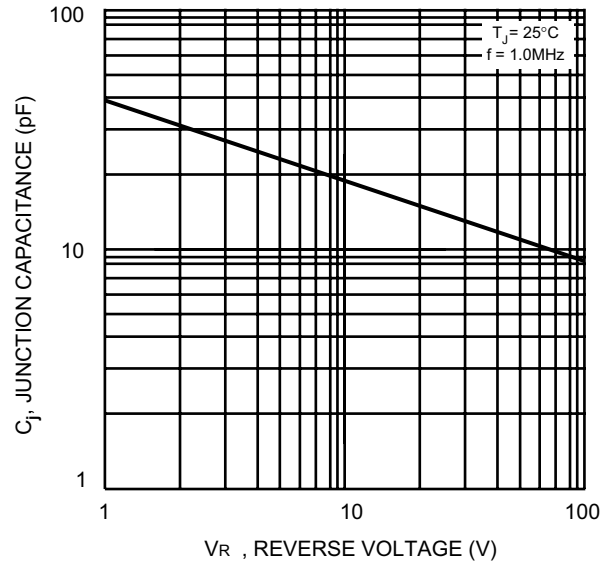
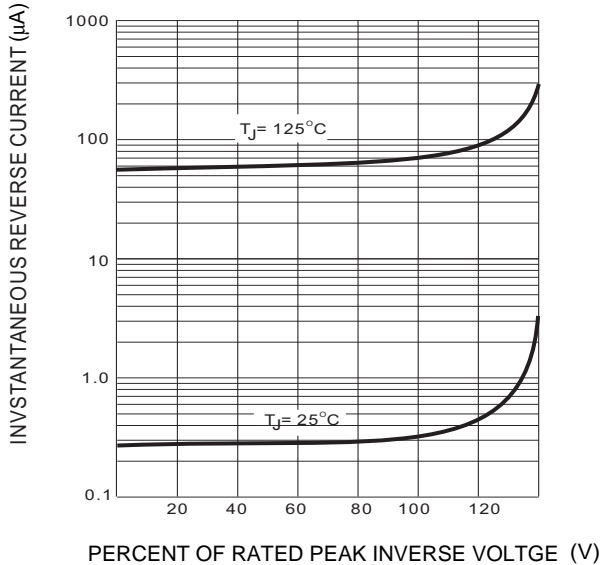


FIG.5 TYPICAL REVERSE CHARACTERISTICS



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