



MB05FU THRU MB10FU

SINGLE PHASE 1.0AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

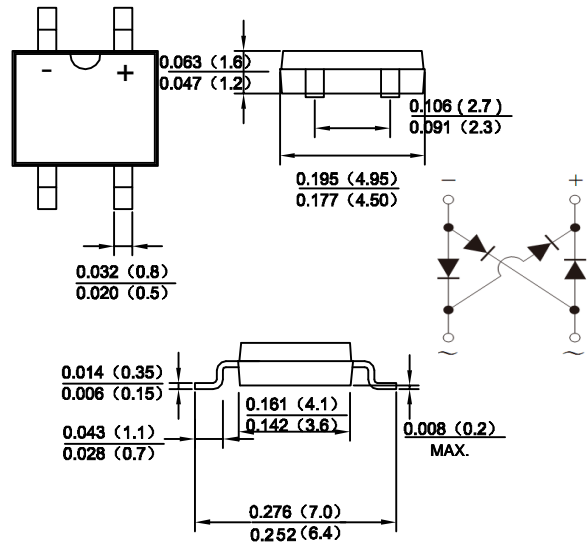
Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- 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°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	MB05FU	MB1FU	MB2FU	MB4FU	MB6FU	MB8FU	MB10FU	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_{DC}								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum average forward rectified current @ $T_C=100^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35							A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	5.083							A^2s
Forward Voltage per element @ $I_F=0.5\text{A}$ @ $I_F=1.0\text{A}$	V_{FM}	0.95 1.0							V
Peak Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	I_R	5.0 100							μA
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	60							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	16							
Operating and Storage Temperature Range	T_J, T_{STG}	-55to+150							$^\circ\text{C}$

Note:1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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Fig. 1 Output Current Derating Curve

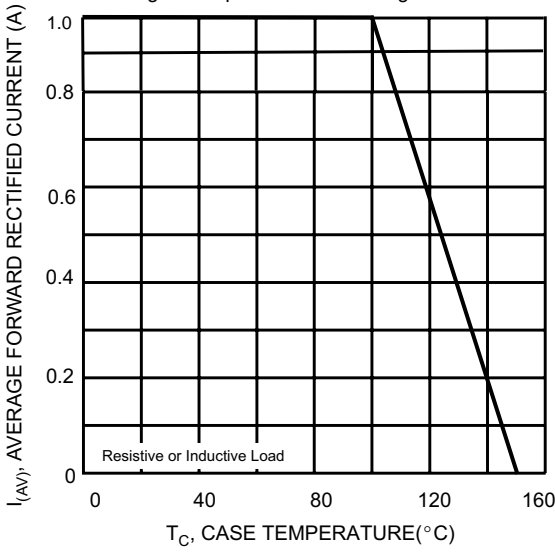


Fig. 2 Typical Forward Characteristics

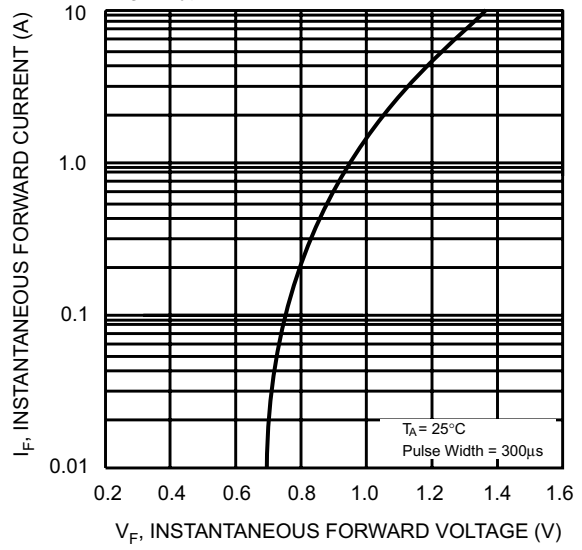


Fig. 3 Maximum Peak Forward Surge Current

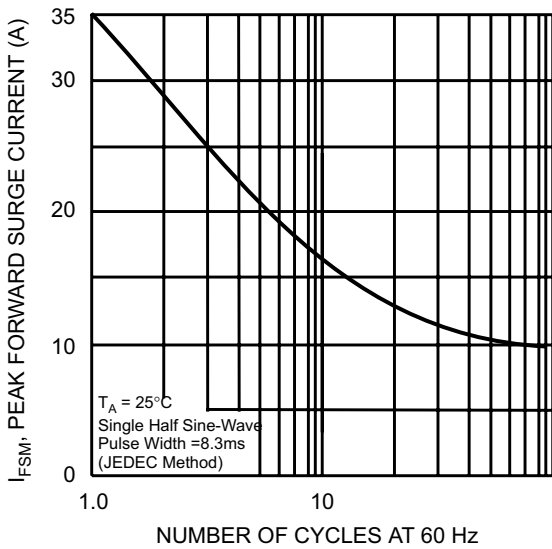


Fig. 4 Typical Junction Capacitance

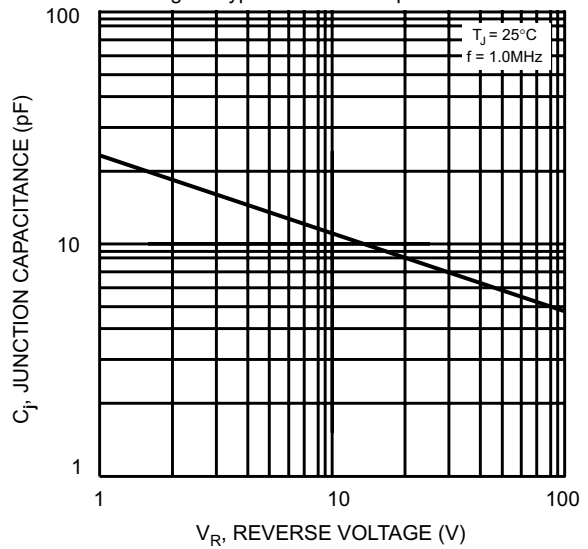


Fig. 5 Typical Reverse Characteristics

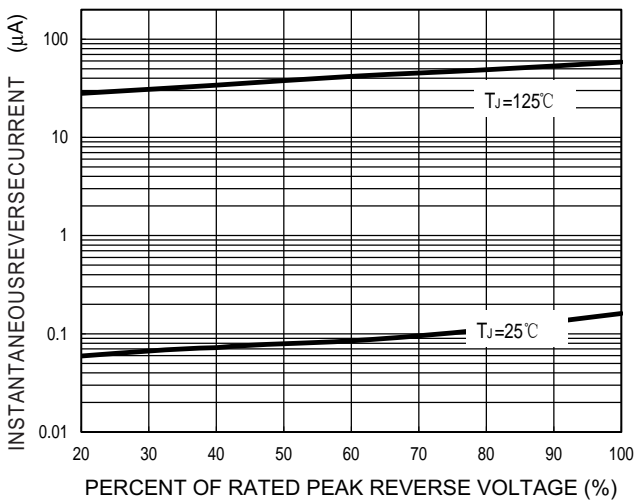
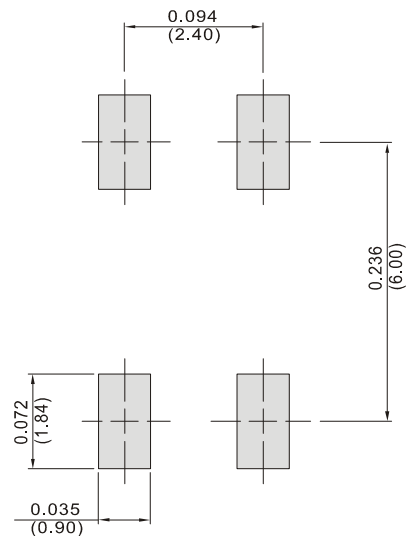


Fig. 6 Mounting Pad Layout





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