



MB05F THRU MB10F

SINGLE PHASE 0.8AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

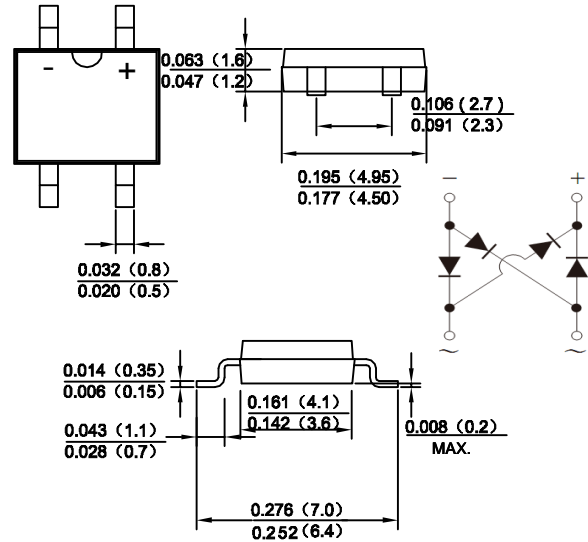
Features

- 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	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	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	
Average Rectified Output Current (Note 1)@T _c =100°C (Note 2)@T _c =100°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 ² t Rating for Fusing (t < 8.3ms)	I ² t	3.735								A ² s
Forward Voltage per element @I _F =0.5A @I _F =0.8A	V_{FM}	0.95				1.0				V
Peak Reverse Current @T _J =25°C At Rated DC Blocking Voltage @T _J =125°C	I_R	5.0				100				uA
Typical Junction Capacitance (Note3)	C_J	13								pF
Typical Thermal Resistance	$R_{\theta JA}$	60								°C/W
	$R_{\theta JL}$	16								
Operating and Storage Temperature Range	T _J , T _{STG}	-55to+150								°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. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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Fig. 1 Output Current Derating Curve

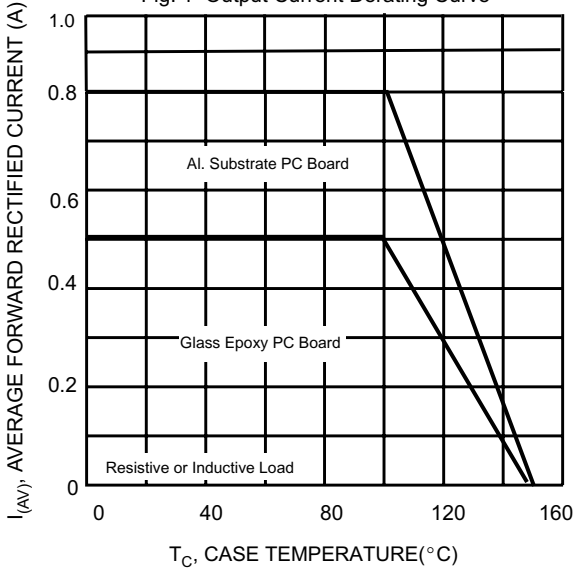


Fig. 2 Typical Forward Characteristics

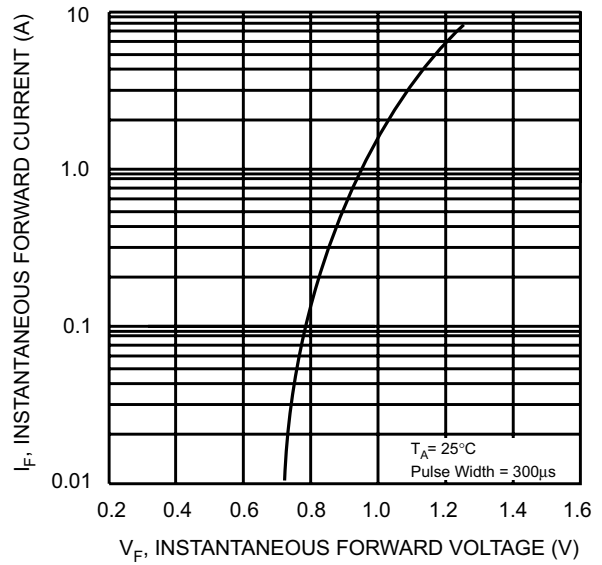


Fig. 3 Maximum Peak Forward Surge Current

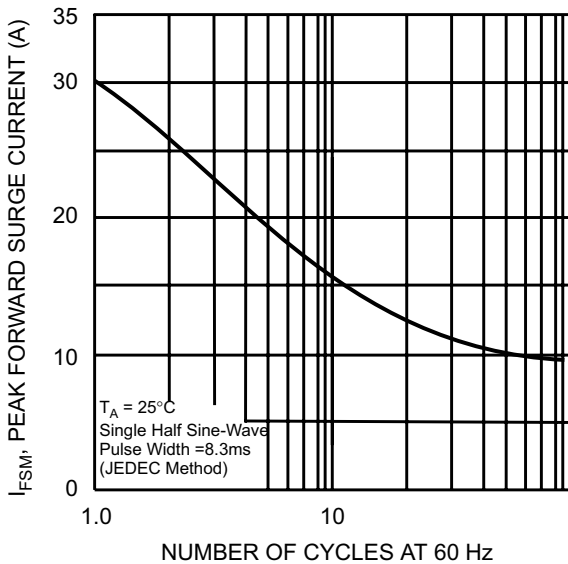


Fig. 4 Typical Junction Capacitance

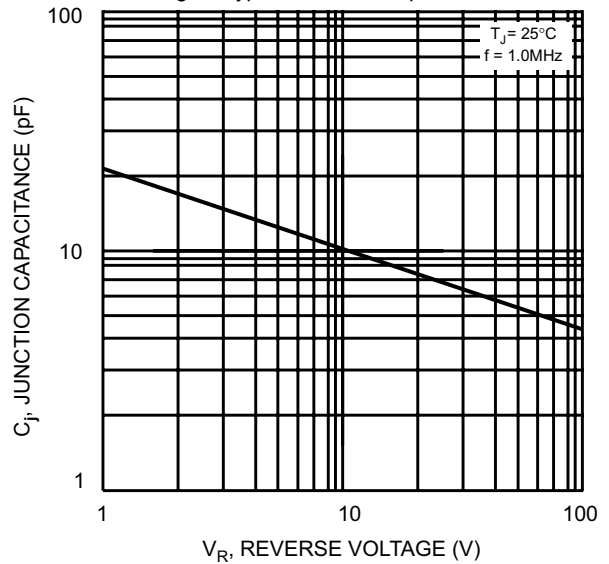


Fig. 5 Typical Reverse Characteristics

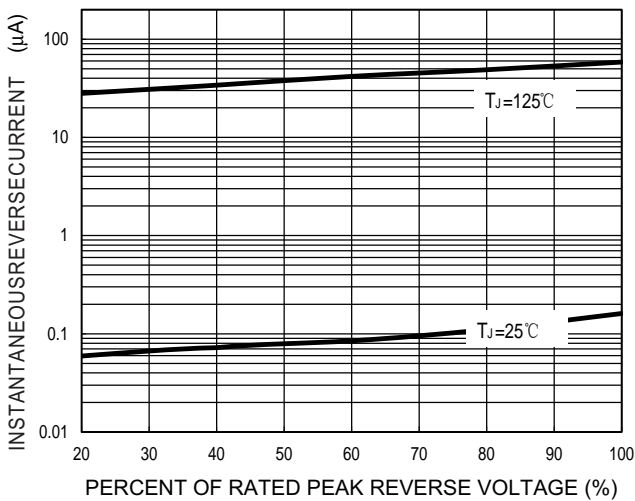
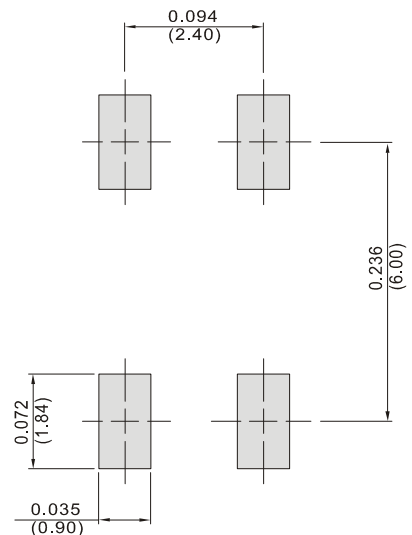


Fig. 6 Mounting Pad Layout





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