

MBF SILICON BRIDGE RECTIFIERV

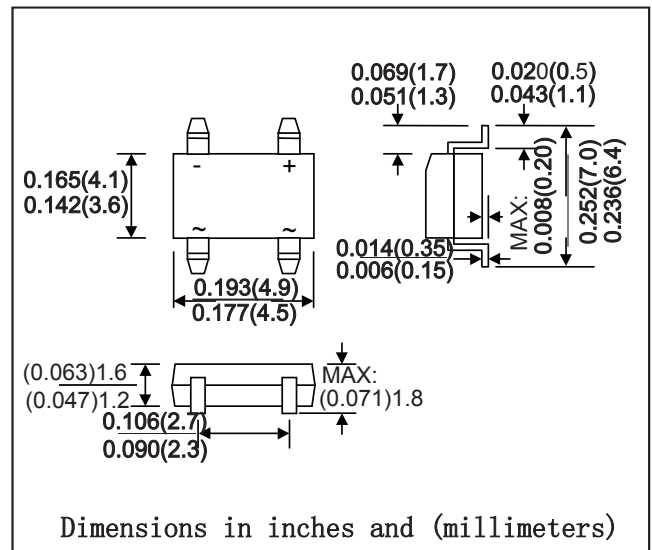
REVERSEVOLTAGE:50 --- 1000V CURRENT: 0.5A

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-MIL-STSTD-D-202, 202, MetMethodhod 202088
- Polarity: As Marked on Case
- Weight: 0.134 grams (approx.)
- Monting Position: Any
- Marking:Type Number



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Characteristic	Symbo	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit	
Peak Repetitive Reverse Voltage	VRRM									
Working Peak Reverse Voltage	VRWM	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	VR									
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V	
Average Rectified Output Current (Note 1) @T _A = 40°C	I _O	0.5								A
Average Rectified Output Current (Note 2) @T _A = 40°C		0.8								
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	5.0								A ² s
Forward Voltage per element @I _F = 0.5A	V _{FM}	1.0								V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}	5.0 500								μA
Typical Junction Capacitance per leg (Note 3)	C _j	13								pF
Typical Thermal Resistance per leg (Note 1)	R _{θJA} R _{θJL}	60 16								°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +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.

RATINGS AND CHARACTERISTIC CURVES

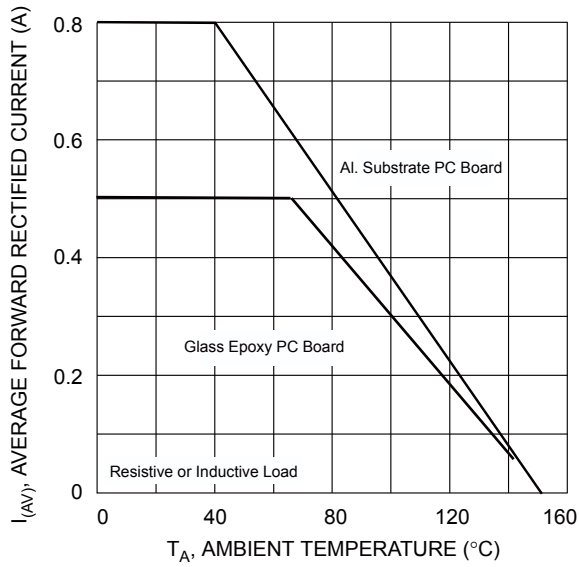


Fig. 1 Output Current Derating Curve

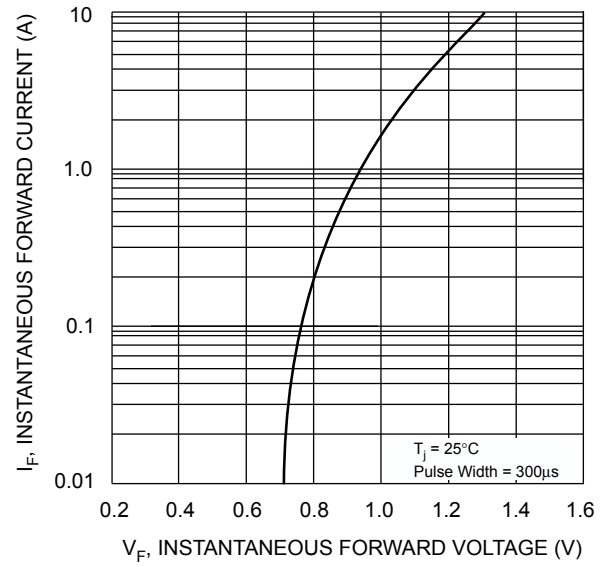


Fig. 2 Typical Forward Characteristics (per leg)

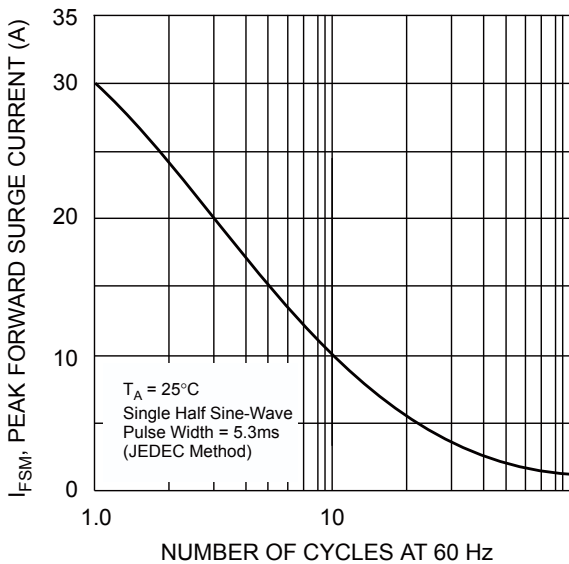


Fig. 3 Maximum Peak Forward Surge Current (per leg)

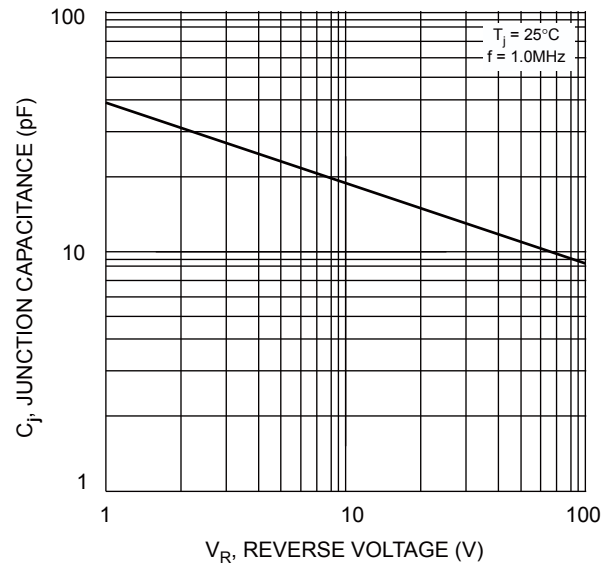


Fig. 4 Typical Junction Capacitance

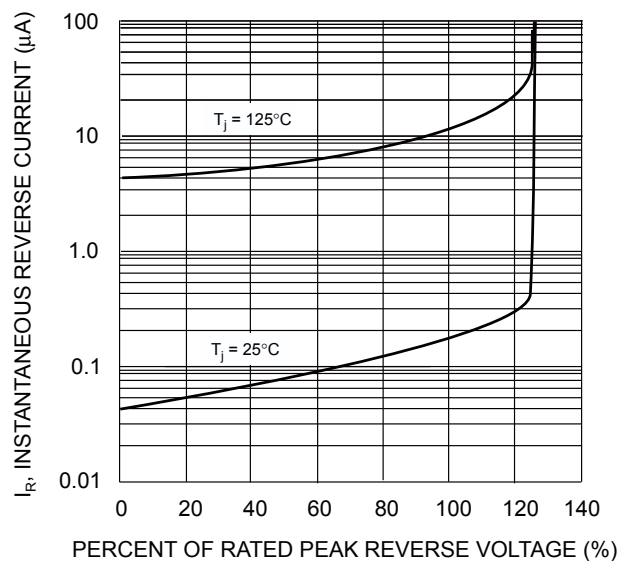


Fig. 5 Typical Reverse Characteristics (per element)