

0.5 A Single-Phase Silicon Bridge Rectifier

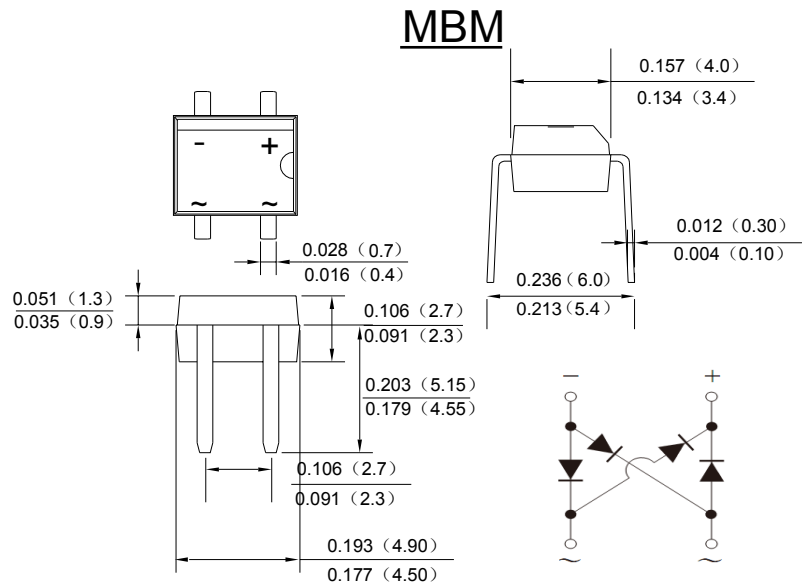
Rectifier Reverse Voltage 50 to 1000V

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	MB05M	MB1M	MB2M	MB4M	MB6M	MB8M	MB10M	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_{DC}								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_c=100^\circ C$ (Note 2)@ $T_c=100^\circ C$	$I_F(AV)$	0.5							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 @ $I_F=0.5A$	V_{FM}	0.95							V
Forward Voltage per element @ $I_F=0.8A$		1.0							
Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	5.0 200							μA
Typical Junction Capacitance per leg (Note 3)	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. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Rating and Characteristic Curves ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

MB05M thru MB10M

