

Low Profile Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier

MB1S - MB8S

VOLTAGE - 50 TO 1000 VOLTS

CURRENT - 0.5 AMPERES

FEATURES

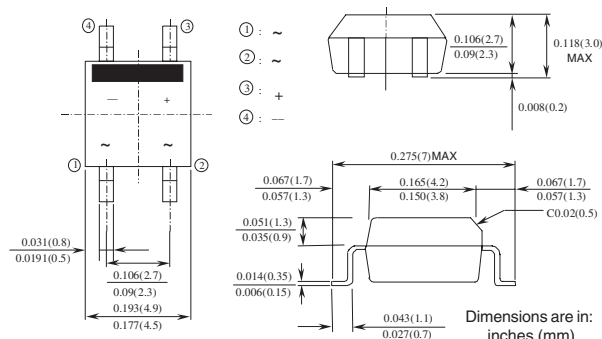
- Low profile space
- Ideal for automated placement
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

MECHANICAL DATA

- Case: MBF Molded plastic over glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarit : Polarit symbols marked on

SOIC-4

Polarity symbols molded
or marking on body



0.5 Ampere Glass Passivated Bridge Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
I _O	Average Rectified Current @ T _A = 50°C	0.5	A
I _{f(surge)}	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	35	A
P _D	Total Device Dissipation Derate above 25°C	1.4 11	W mW/°C
R _{JA}	Thermal Resistance, Junction to Ambient,** per leg	85	°C/W
R _{JL}	Thermal Resistance, Junction to Lead,** per leg	20	°C/W
T _{stg}	Storage Tem perature Range	-55 to +150	°C
T _J	Operating Junction Tem perature	-55 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

** Device mounted on PCB with 0.5-0.5" (13x13 mm) lead length.

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Device					Units
	1S	2S	4S	6S	8S	
Peak Repetitive Reverse Voltage	100	200	400	600	800	V
Maximum RMS Bridge Input Voltage	70	140	280	420	560	V
DC Reverse Voltage (Rated V _R)	100	200	400	600	800	V
Maximum Reverse Leakage, per leg @ rated V _R T _A = 25°C T _A = 125°C	5.0 0.5					A mA
Maximum Forward Voltage Drop, per bridge @ 0.5 A	1.0					V
I ² t rating for fusing t < 8.3 ms	5.0					A ² t
Typical Junction Capacitance, per leg V _R = 4.0 V, f = 1.0 MHz	13					pF



Typical Characteristics

