

# SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

## MB05S - MB10S

## 50 TO 1000V

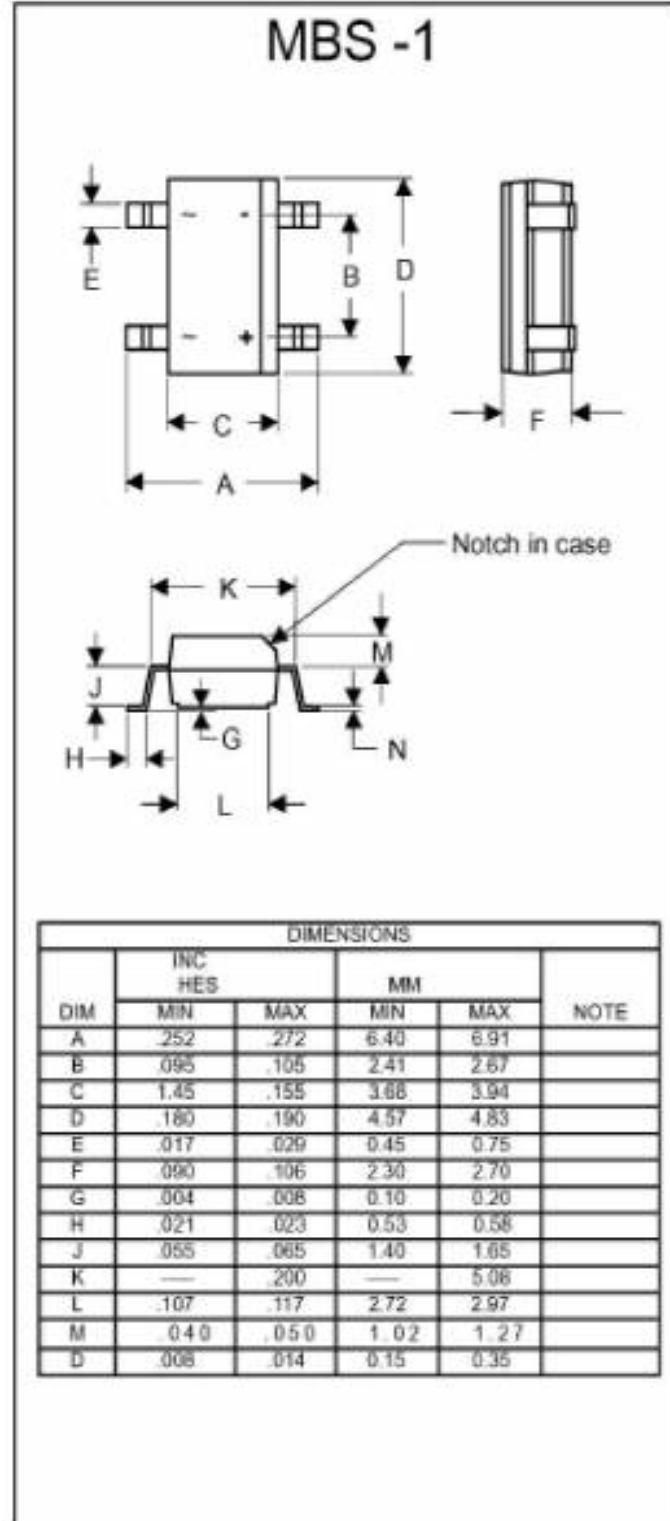
### Features

- Surface Mount Package
- Glass passivated Diode Construction
- Moisture Resistant Epoxy Case
- High Surge Current Capability

### Maximum Ratings

Operating Temperature:-55°C to +150°C  
 Storage Temperature:-55°C to +150°C

| MCC Catalog Number | Device Marking | Maximum Rccurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| MB05S              | MB05S          | 50V                                    | 35V                 | 50V                         |
| MB1S               | MB1S           | 100V                                   | 70V                 | 100V                        |
| MB2S               | MB2S           | 200V                                   | 140V                | 200V                        |
| MB4S               | MB4S           | 400V                                   | 280V                | 400V                        |
| MB6S               | MB6S           | 600V                                   | 420V                | 600V                        |
| MB8S               | MB8S           | 800V                                   | 560V                | 800V                        |
| MB10S              | MB10S          | 1000V                                  | 700V                | 1000V                       |



### Electrical Characteristics @ 25°C Unless Otherwise Specific

|   |             |              |  |
|---|-------------|--------------|--|
| Average Forward Current                                 | $I_{F(AV)}$ | 0.5A<br>0.8A | Note1 $T_A = 40^\circ C$<br>Note2 $T_A = 40^\circ C$ |
| Peak Forward Surge Current                              | $I_{FSM}$   | 30A          | 8.3ms, half sine                                     |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.0V         | $I_{FM}=0.5A;$<br>$T_A=25^\circ C$                   |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5uA          | $T_A=25^\circ C$                                     |
| Typical Junction Capacitance                            | $C_j$       | 25pF         | Measured at 1.0MHz,<br>$V_R=4.0V$                    |

Note1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts  
 Note2. On alum: substrate P.C.B with an rea of 0.8 \* 0.8 \* 0.25  
 ( 20 \* 20 \* 6.4mm) mounte on 0.05 \* 0.05 "(13 \* 13 mm)  
 solder pad.

\*Pulse Test: Pulse Width 300usec, Duty Cycle 1%



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Figure 1  
Typical Forward Characteristics

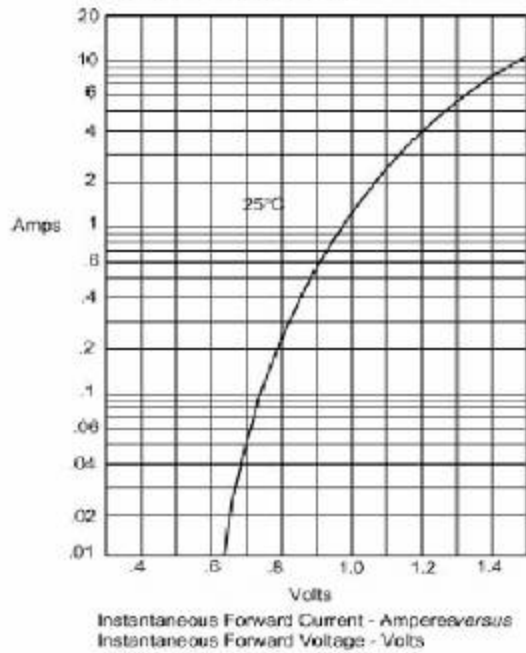


Figure 2  
Typical Reverse Characteristics

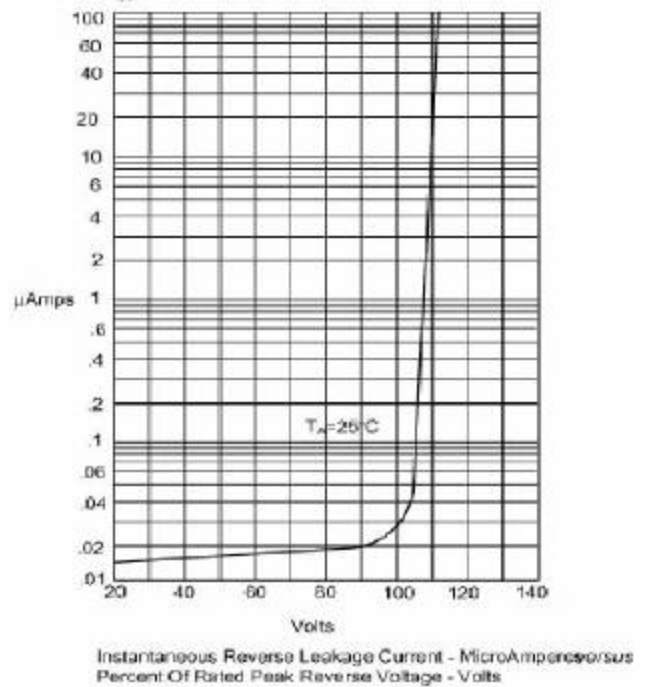


Figure 3  
Forward Derating Curve

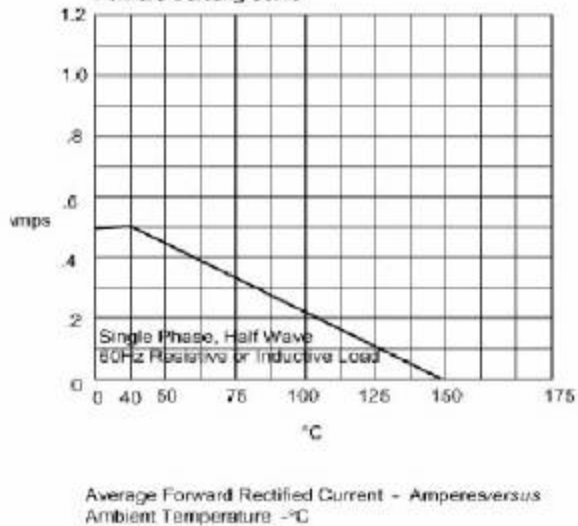


Figure 4  
Peak Forward Surge Current

