



Micro Commercial Components  
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 CA 91311  
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# MB805 THRU MB810

## Features

- Mounting Hole For #6 Screw
- Ceramic Case
- Any Mounting Position
- Surge Rating Of 125 Amps

## 8 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

## Maximum Ratings

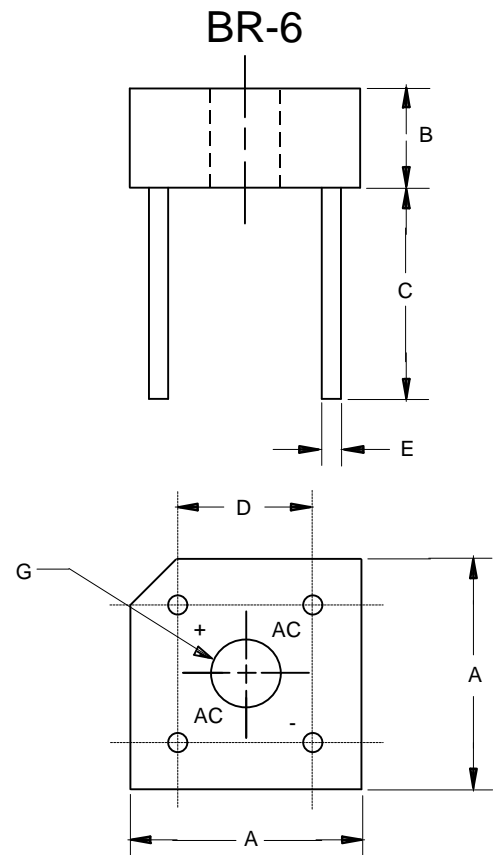
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|--|---------------------|-----------------------------|
| MB805                    | MB805          | 50V                                    | 35V                 | 50V                         |
| MB81                     | MB81           | 100V                                   | 70V                 | 100V                        |
| MB82                     | MB82           | 200V                                   | 140V                | 200V                        |
| MB84                     | MB84           | 400V                                   | 280V                | 400V                        |
| MB86                     | MB86           | 600V                                   | 420V                | 600V                        |
| MB88                     | MB88           | 800V                                   | 560V                | 800V                        |
| MB810                    | MB810          | 1000V                                  | 700V                | 1000V                       |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                         |   |
|---|-------------|-------------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 8.0A                    | $T_C = 50^\circ\text{C}$  |
| Peak Forward Surge Current                              | $I_{FSM}$   | 125A                    | 8.3ms, half sine  |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 1.1V                    | $I_{FM} = 4.0\text{A}$ per element;<br>$T_A = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu\text{A}$<br>1mA | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$             |

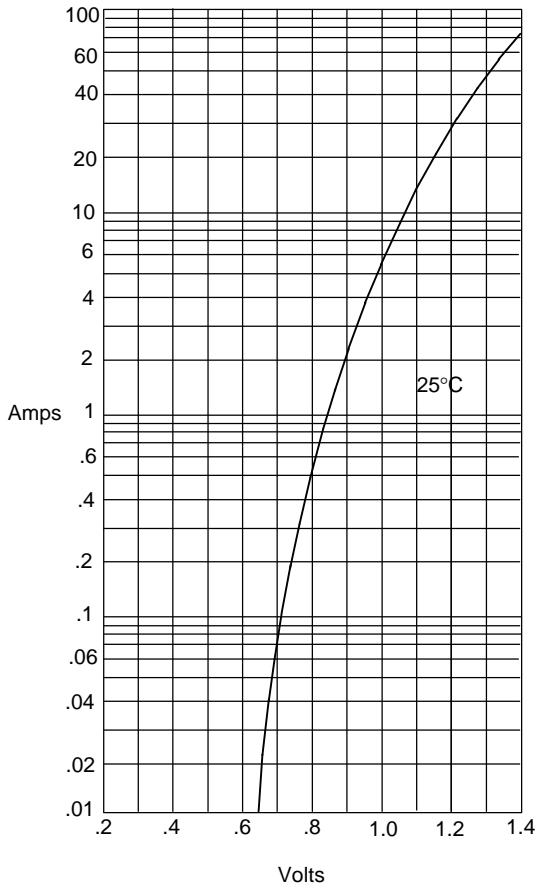
\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%



| DIM | INCHES |      | MM    |       | NOTE          |
|-----|--------|------|-------|-------|---------------|
|     | MIN    | MAX  | MIN   | MAX   |               |
| A   | .578   | .618 | 14.69 | 15.71 | 2PL           |
| B   | .230   | .270 | 5.84  | 6.86  |               |
| C   | .750   | ---  | 19.10 | ---   |               |
| D   | .405   | .444 | 10.30 | 11.30 | 2PL           |
| E   | .038   | .042 | 0.97  | 1.07  | 4PL/TYP       |
| G   | .145   | ---  | 3.70  | ---   | $\varnothing$ |

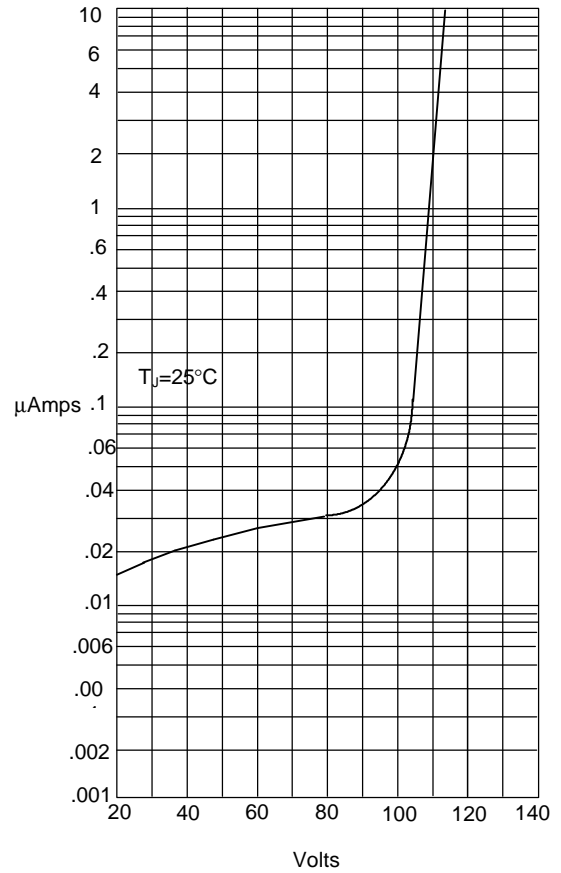
# MB805 thru MB810

Figure 1  
Typical Forward Characteristics



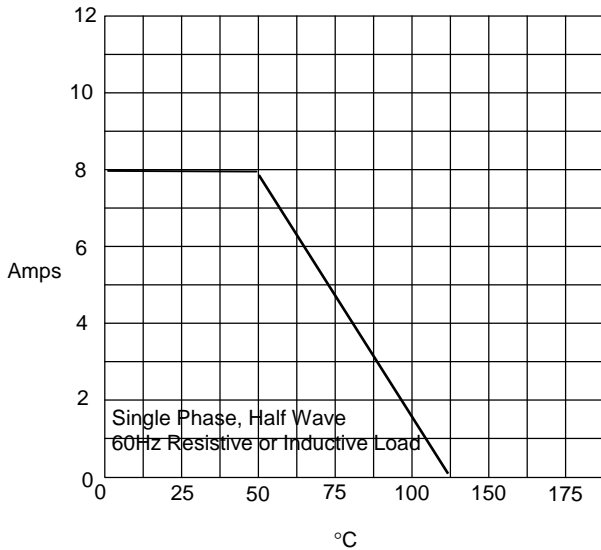
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



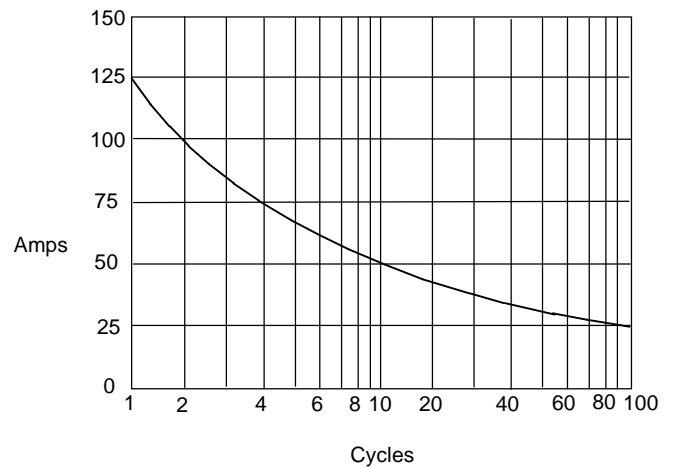
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 4  
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles