



Micro Commercial Components  
 21201 Itasca Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# MB1505 THRU MB1510

## Features

- Mounting Hole For #8 Screw
- High Conductivity Metal Case
- Any Mounting Position
- Surge Rating Of 300 Amps

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

## Maximum Ratings

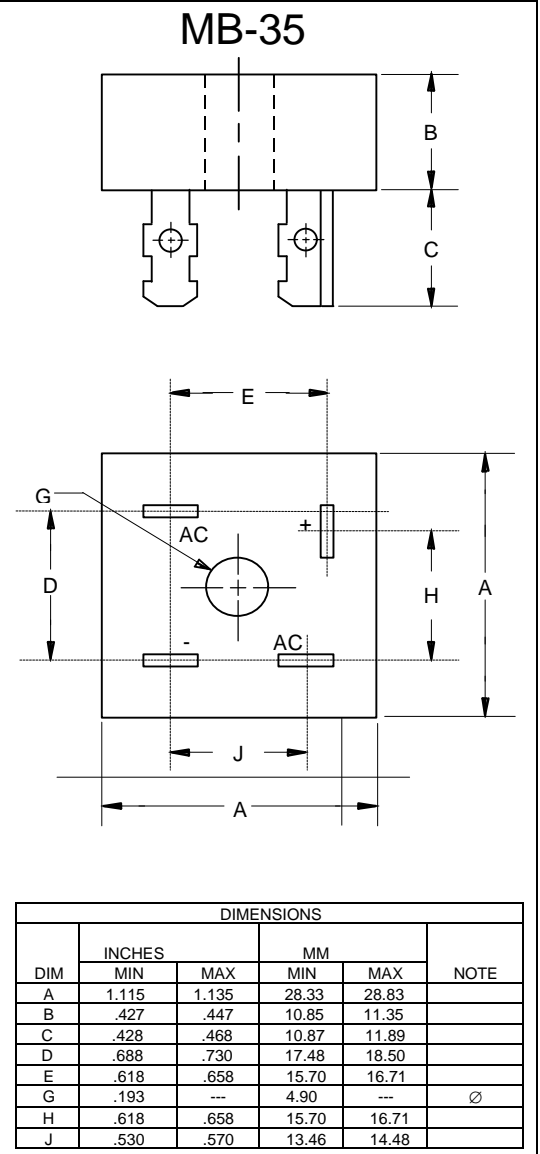
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| MB1505             | MB1505         | 50V                                    | 35V                 | 50V                         |
| MB151              | MB151          | 100V                                   | 70V                 | 100V                        |
| MB152              | MB152          | 200V                                   | 140V                | 200V                        |
| MB154              | MB154          | 400V                                   | 280V                | 400V                        |
| MB156              | MB156          | 600V                                   | 420V                | 600V                        |
| MB158              | MB158          | 800V                                   | 560V                | 800V                        |
| MB1510             | MB1510         | 1000V                                  | 700V                | 1000V                       |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

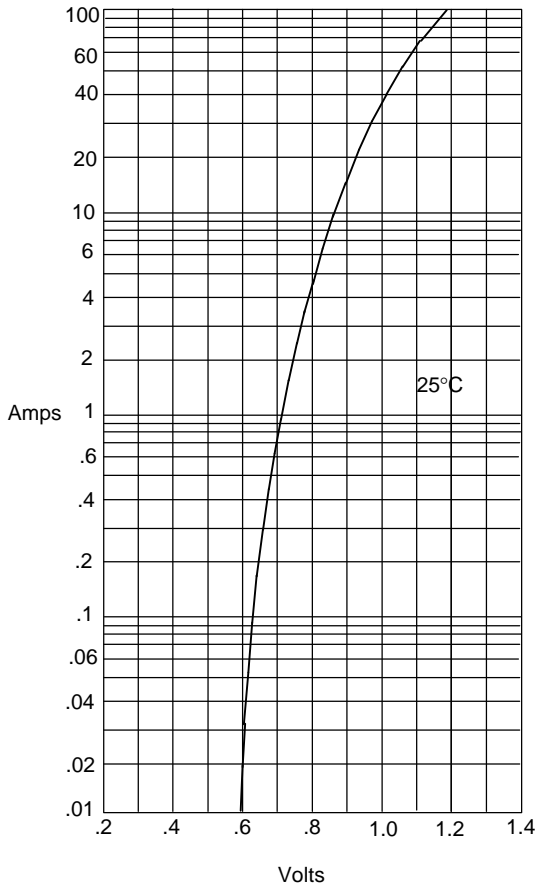
|   |             |                   |   |
|---|-------------|-------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 15.0A             | $T_C = 55^\circ\text{C}$  |
| Peak Forward Surge Current                              | $I_{FSM}$   | 300A              | 8.3ms, half sine  |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 1.2V              | $I_{FM} = 7.5\text{A}$ per element;<br>$T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu$ A<br>1mA | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$           |

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



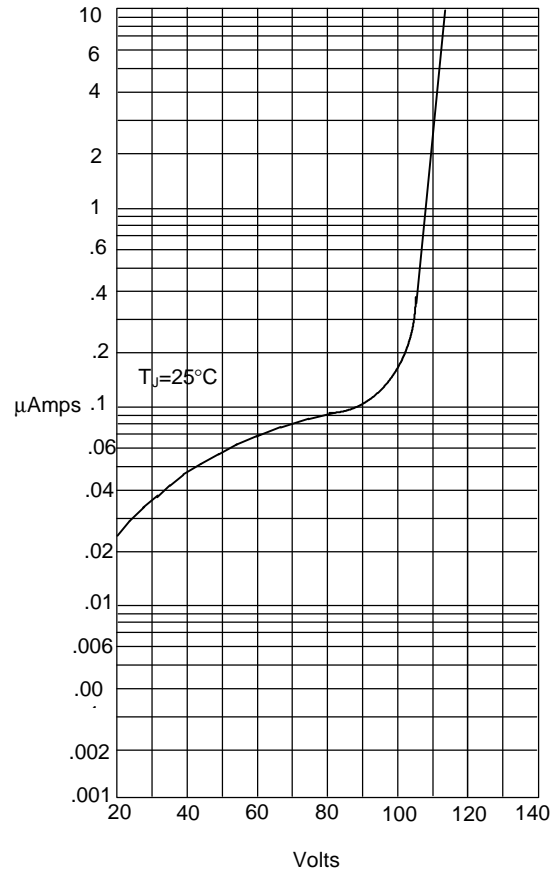
# MB1505 thru MB1510

Figure 1  
Typical Forward Characteristics



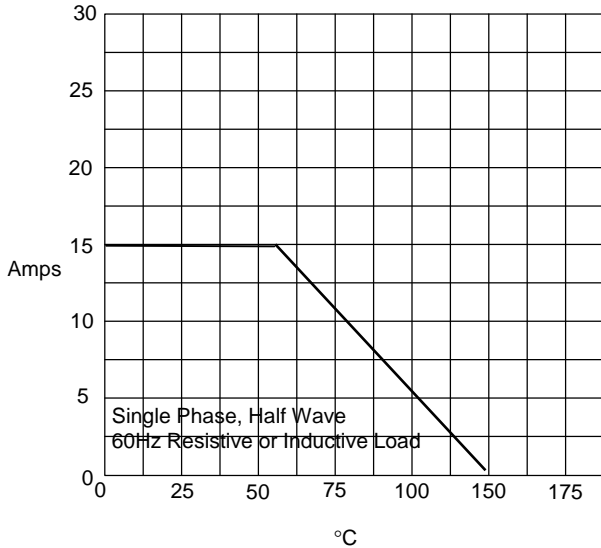
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



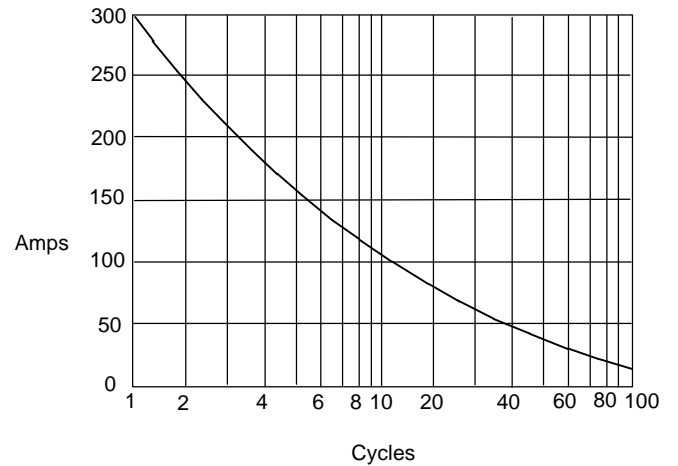
Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*  
Case Temperature - °C

Figure 4  
Peak Forward Surge Current



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