

# MB2505W THRU MB2510W

## Features

- Mounting Hole For #8 Screw
- High Conductivity Metal Case
- Any Mounting Position
- Case to Terminal Isolation Voltage 2500V
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

## Maximum Ratings

- Mounting Torque: 20 in-lbs Maximum
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| MB2505W            | MB2505W        | 50V                                    | 35V                 | 50V                         |
| MB251W             | MB251W         | 100V                                   | 70V                 | 100V                        |
| MB252W             | MB252W         | 200V                                   | 140V                | 200V                        |
| MB254W             | MB254W         | 400V                                   | 280V                | 400V                        |
| MB256W             | MB256W         | 600V                                   | 420V                | 600V                        |
| MB258W             | MB258W         | 800V                                   | 560V                | 800V                        |
| MB2510W            | MB2510W        | 1000V                                  | 700V                | 1000V                       |

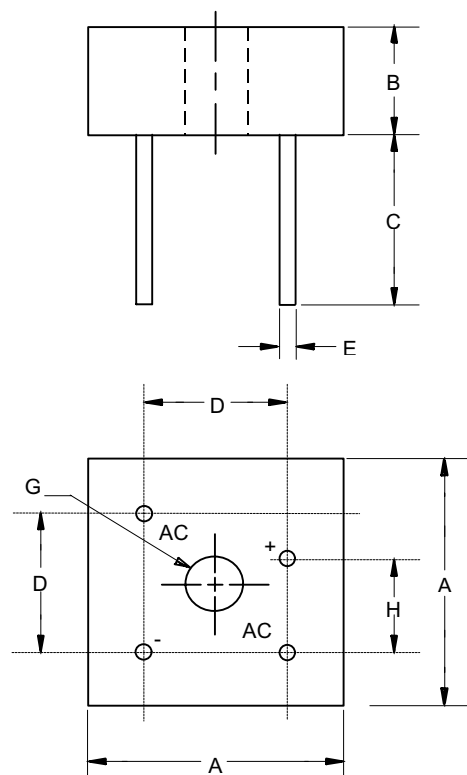
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |             |                                                             |
|---------------------------------------------------------|-------------|-------------|-------------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 25.0A       | $T_C = 55^\circ\text{C}$                                    |
| Peak Forward Surge Current                              | $I_{FSM}$   | 300A        | 8.3ms, half sine                                            |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 1.2V        | $I_{FM} = 12.5\text{A per element}; T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10μA<br>1mA | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$       |

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

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

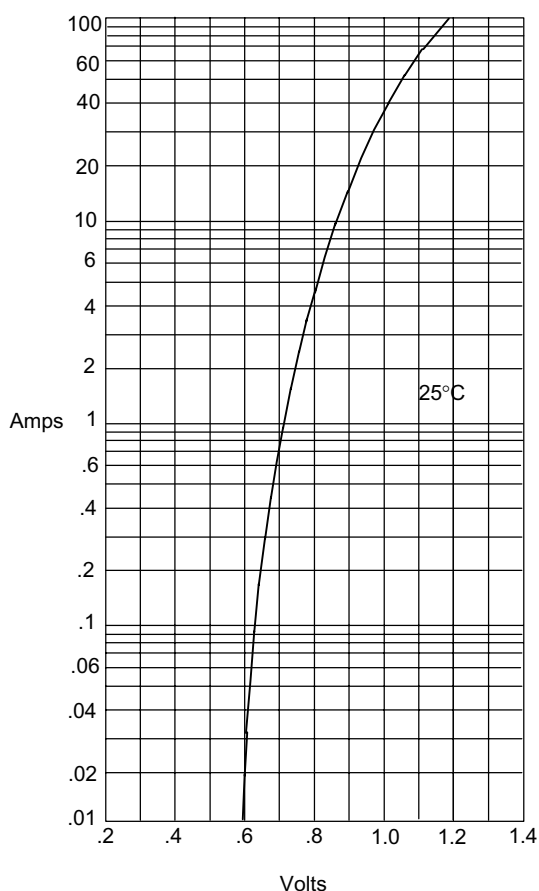
### MB-35W



| DIM | INCHES |       | MM    |       | NOTE    |
|-----|--------|-------|-------|-------|---------|
|     | MIN    | MAX   | MIN   | MAX   |         |
| A   | 1.115  | 1.135 | 28.33 | 28.83 |         |
| B   | .427   | .447  | 10.85 | 11.35 |         |
| C   | .774   | ----- | 19.65 | ----- |         |
| D   | .673   | .752  | 17.10 | 19.10 |         |
| E   | .038   | .042  | 0.96  | 1.07  | 4PL/TYP |
| G   | .193   | ---   | 4.90  | ---   | Ø       |
| H   | .429   | .469  | 10.90 | 11.90 |         |

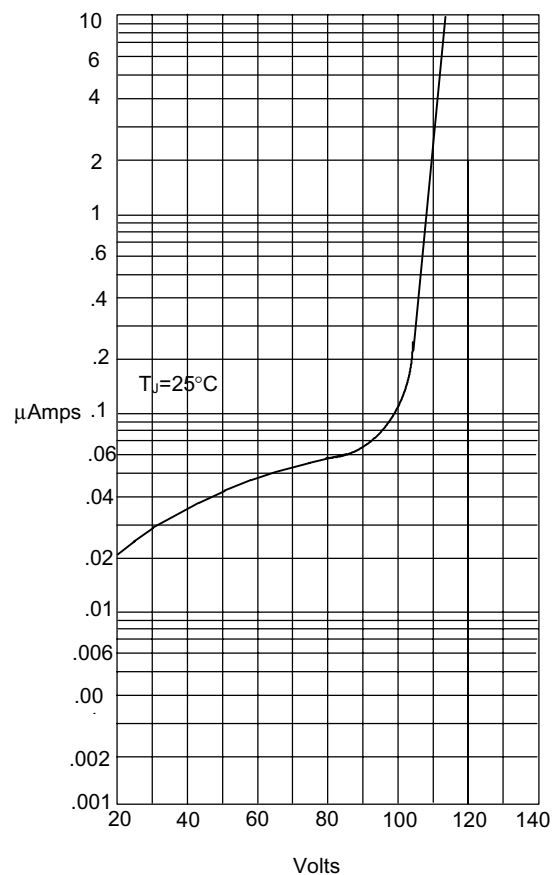
# MB2505W thru MB2510W

Figure 1  
Typical Forward Characteristics



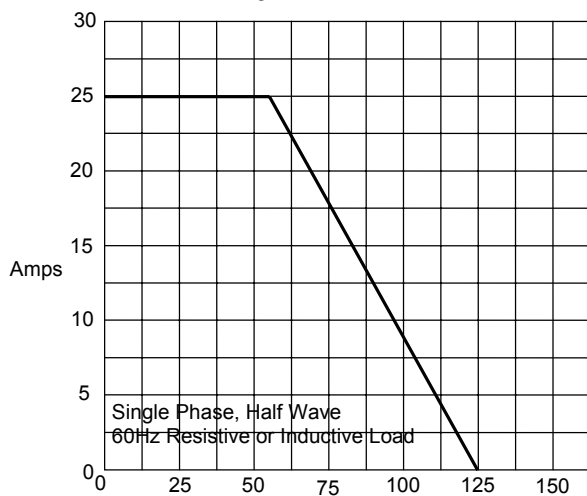
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



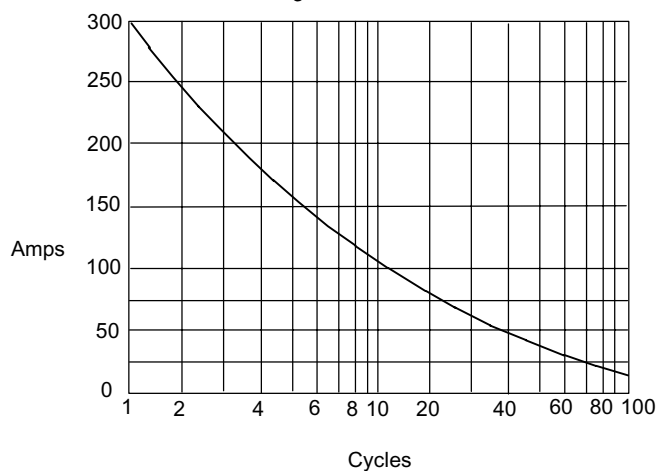
Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

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



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## Ordering Information

| Device           | Packing         |
|------------------|-----------------|
| (Part Number)-BP | Bulk;400Pcs/Ctn |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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