



Micro Commercial Components



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# MP1505 THRU MP1510

## Features

- Halogen free available upon request by adding suffix "-HF"
- Mounting Hole For #8 Screw
- Plastic Case With Metal Bottom
- Any Mounting Position
- Surge Rating Of 300 Amps
- 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 |
|--------------------|----------------|--|---------------------|-----------------------------|
| MP1505             | MP1505         | 50V                                    | 35V                 | 50V                         |
| MP151              | MP151          | 100V                                   | 70V                 | 100V                        |
| MP152              | MP152          | 200V                                   | 140V                | 200V                        |
| MP154              | MP154          | 400V                                   | 280V                | 400V                        |
| MP156              | MP156          | 600V                                   | 420V                | 600V                        |
| MP158              | MP158          | 800V                                   | 560V                | 800V                        |
| MP1510             | MP1510         | 1000v                                  | 700V                | 1000V                       |

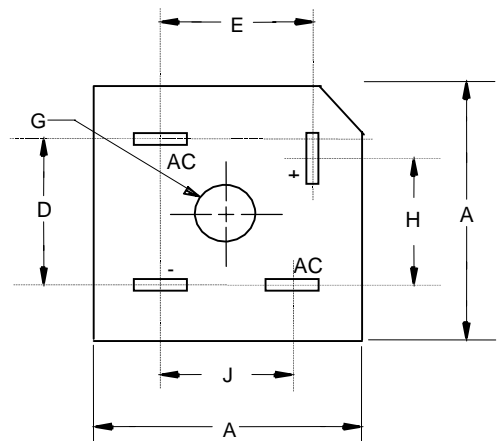
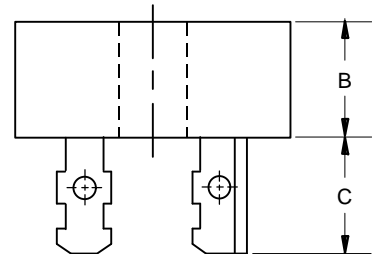
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                                      |   |
|---|-------------|--------------------------------------|---|
| 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                | $V_F$       | 1.1V                                 | $I_{FM} = 7.5\text{A}$ per element;<br>$T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5 $\mu\text{A}$<br>500 $\mu\text{A}$ | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$           |

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

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

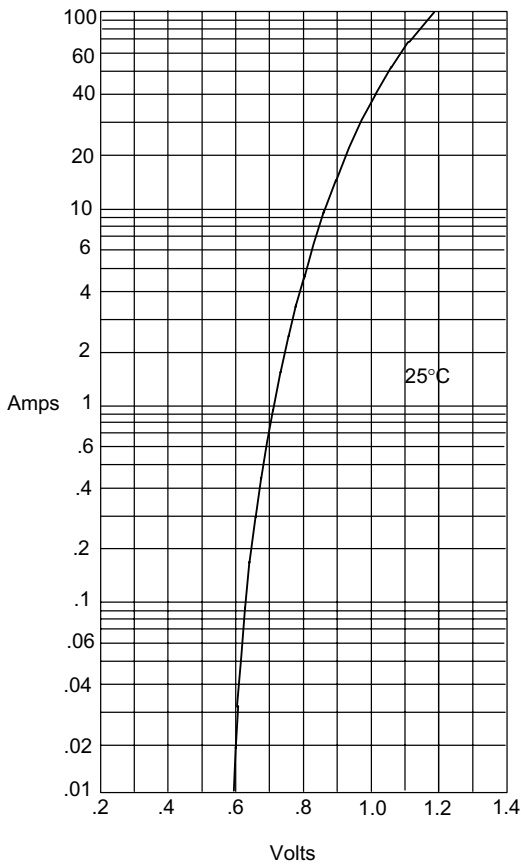
MP-50



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 1.118  | 1.130 | 28.40 | 28.70 |      |
| B   | .432   | .442  | 10.91 | 11.23 |      |
| C   | .468   | .558  | 11.89 | 14.17 |      |
| D   | .689   | .728  | 17.50 | 18.50 |      |
| E   | .618   | .657  | 15.70 | 16.70 |      |
| G   | .193   | ---   | 4.90  | ---   | ∅    |
| H   | .618   | .657  | 15.70 | 16.70 |      |
| J   | .531   | .571  | 13.50 | 14.50 |      |

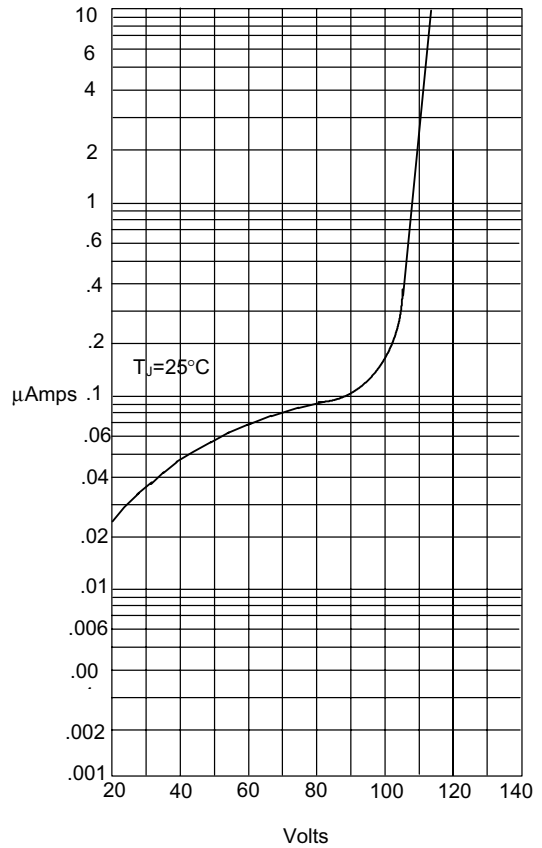
**MP1505 thru MP1510**

Figure 1  
Typical Forward Characteristics



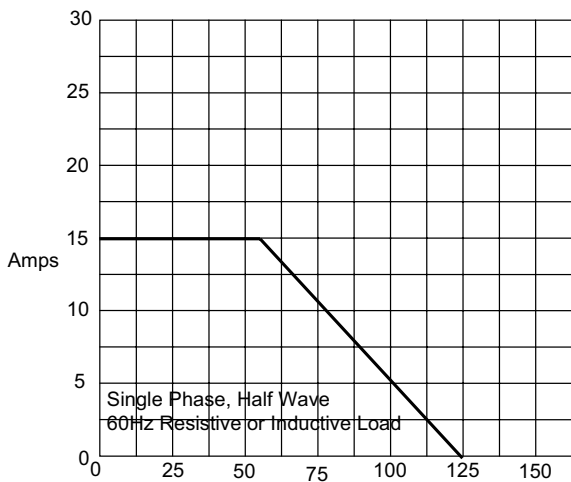
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



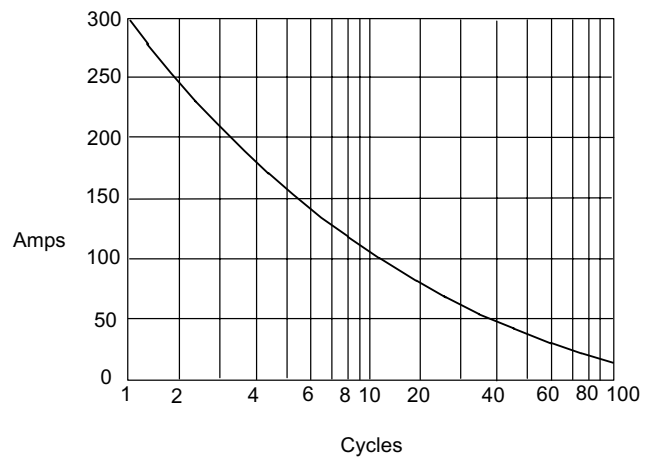
Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

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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