



Micro Commercial Components
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MP5005 THRU MP5010

Features

- Mounting Hole For #8 Screw
- Plastic Case With Metal Bottom
- Any Mounting Position
- Surge Rating Of 400 Amps

50 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

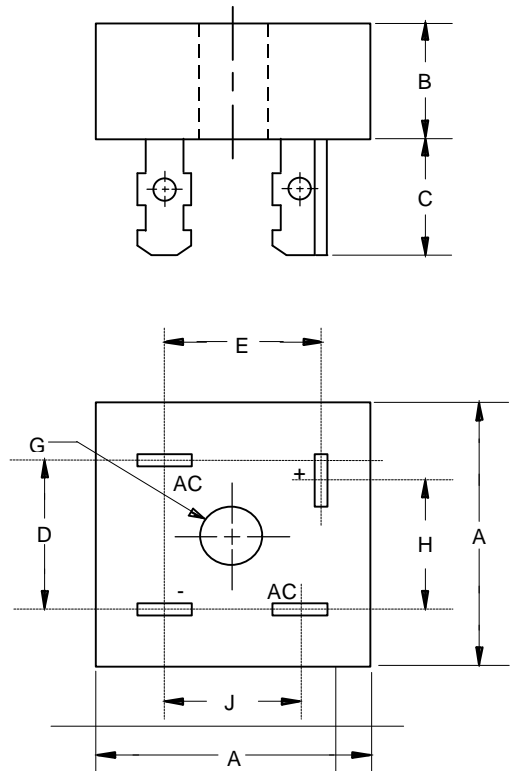
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| MP5005 | MP5005 | 50V | 35V | 50V |
| MP501 | MP501 | 100V | 70V | 100V |
| MP502 | MP502 | 200V | 140V | 200V |
| MP504 | MP504 | 400V | 280V | 400V |
| MP506 | MP506 | 600V | 420V | 600V |
| MP508 | MP508 | 800V | 560V | 800V |
| MP5010 | MP5010 | 1000v | 700V | 1000v |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|---------------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 50.0A | $T_J = 55^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 400A | 8.3ms, half sine |
| Maximum Forward Voltage Drop Per Element | V_F | 1.2V | $I_{FM} = 25\text{A}$ per element; $T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10 μA 1.0mA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

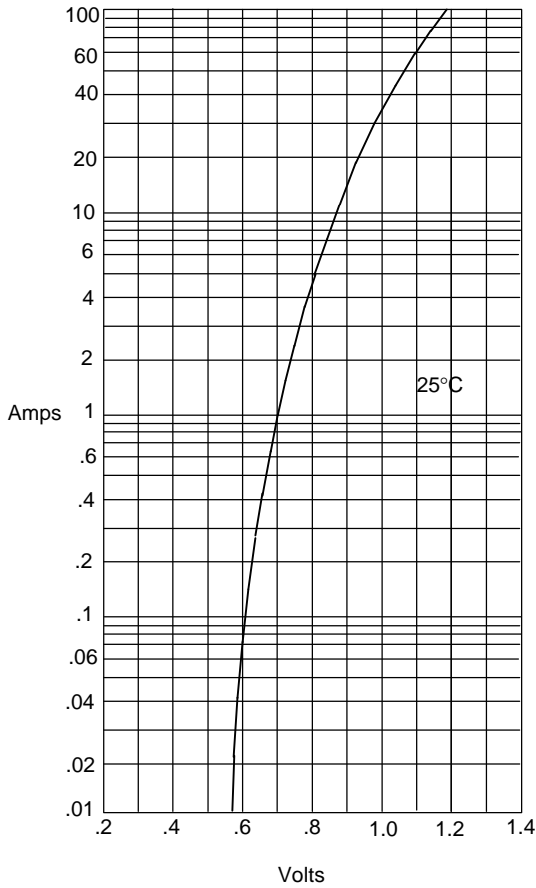
MP-50



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | --- | 1.140 | --- | 29.00 | |
| B | --- | .452 | --- | 11.50 | |
| C | .425 | .480 | 10.80 | 12.20 | |
| D | .693 | .732 | 17.54 | 18.6 | |
| E | .637 | .677 | 16.20 | 17.20 | |
| G | .188 | --- | 4.77 | --- | ∅ |
| H | .633 | .673 | 16.10 | 17.10 | |
| J | .543 | .582 | 13.80 | 14.80 | |

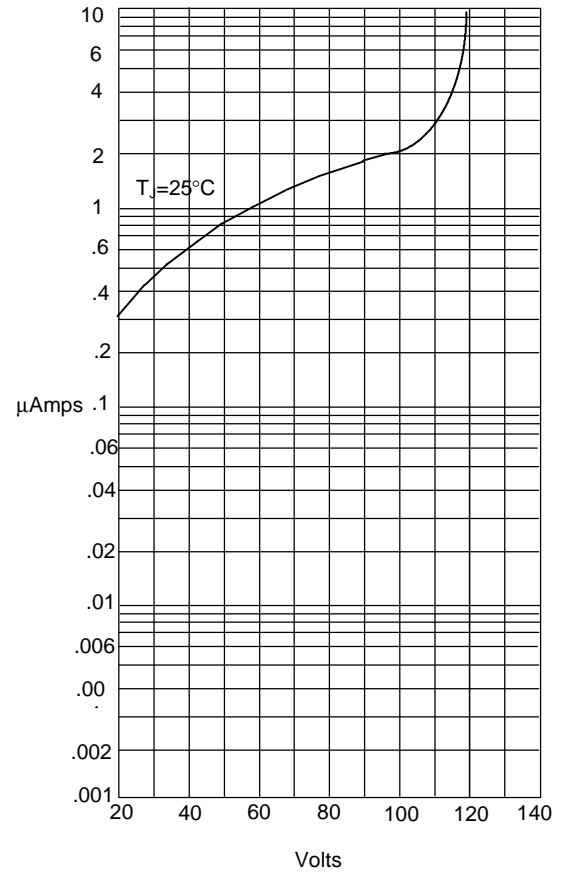
MP5005 thru MP5010

Figure 1
Typical Forward Characteristics



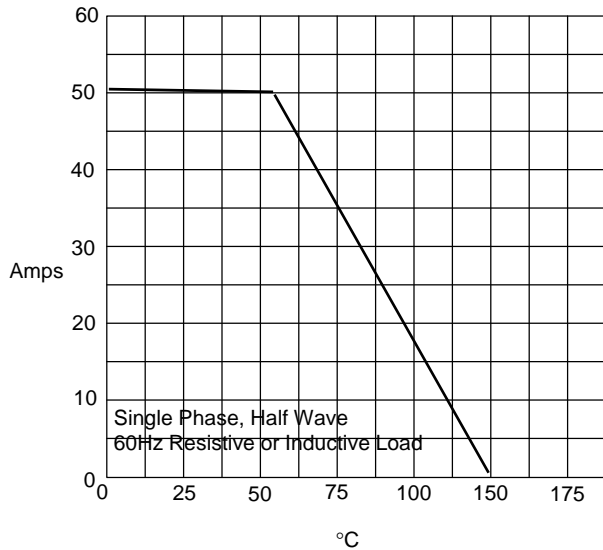
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



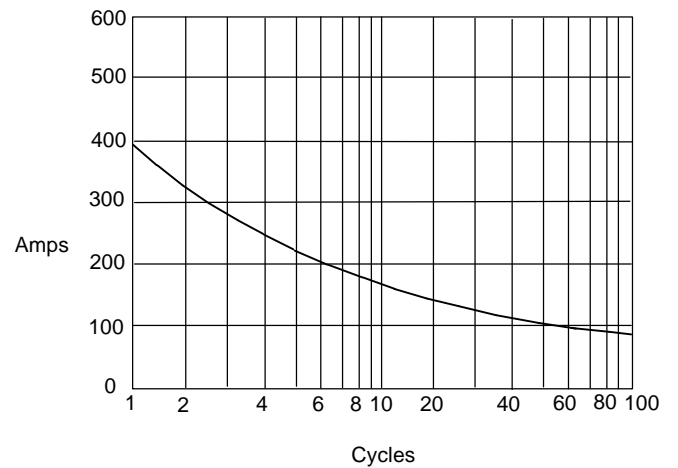
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



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

Figure 4
Peak Forward Surge Current



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