Obsolete

·M·C·C·™

Micro Commercial Components

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RoHS COMPLIANT

# MP4005 THRU MP4010

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

## Features

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

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Mounting Torgue: 20 in-lbs Maximum

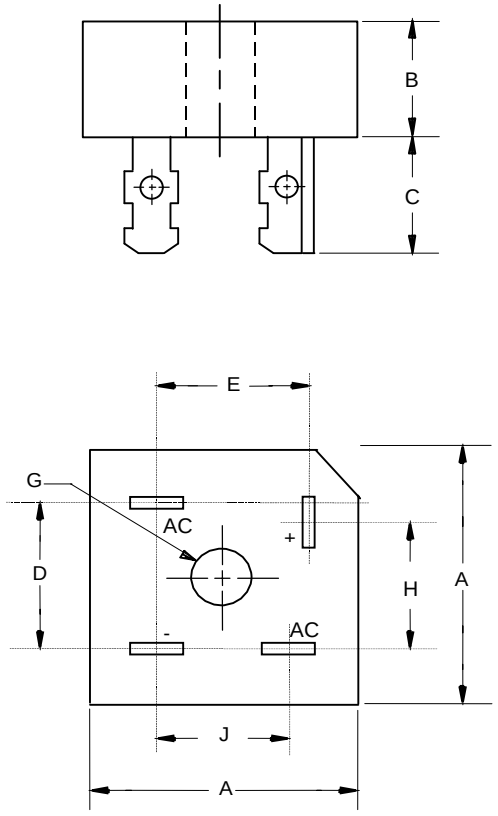
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|---|
| MP4005 | MP4005 | 50V | 35V | 50V |
| MP401 | MP401 | 100V | 70V | 100V |
| MP402 | MP402 | 200V | 140V | 200V |
| MP404 | MP404 | 400V | 280V | 400V |
| MP406 | MP406 | 600V | 420V | 600V |
| MP408 | MP408 | 800V | 560V | 800V |
| MP4010 | MP4010 | 1000v | 700V | 1000v |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|---|---|---|
| Average Forward Current | $I_{F(AV)}$ | 40.0A | $T_J$ = 55°C |
| Peak Forward Surge Current | $I_{FSM}$ | 400A | 8.3ms, half sine |
| Maximum Forward Voltage Drop Per Element | $V_F$ | 1.2V | $I_{FM}$ = 20A per element; $T_J$ = 25°C* |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$ | 10μA<br>1.0mA | $T_J$ = 25°C<br>$T_J$ = 100°C |

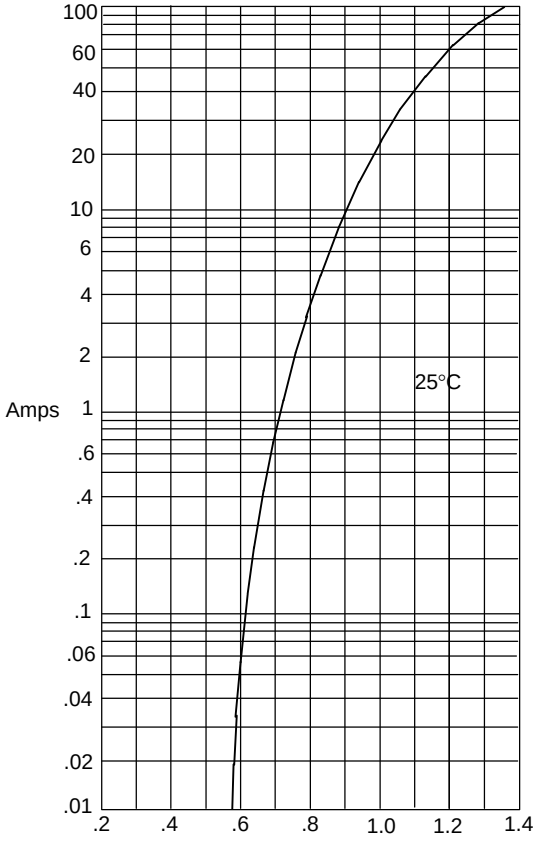
Note: 1.Pulse test: Pulse width 300 μsec, Duty cycle 1%
2.Pulse test: Pulse width 300 μsec, Duty cycle 1%

MP-50



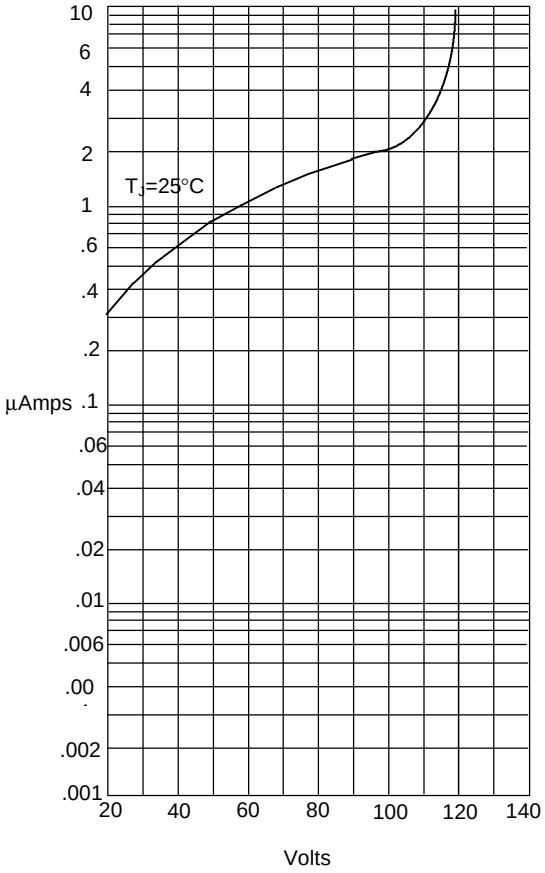

| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| A | --- | 1.140 | --- | 29.00 | |
| B | --- | .452 | --- | 11.50 | |
| C | .425 | .480 | 10.80 | 12.20 | |
| D | .693 | .732 | 17.54 | 18.6 | |
| E | .637 | .677 | 16.20 | 17.20 | |
| G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

Figure 1
Typical Forward Characteristics



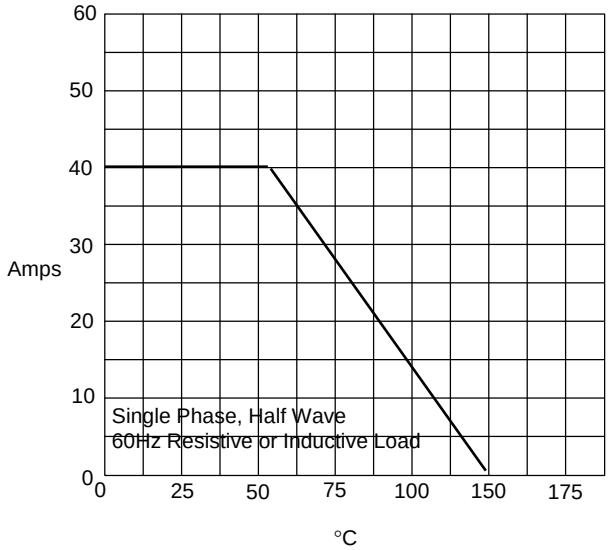

Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



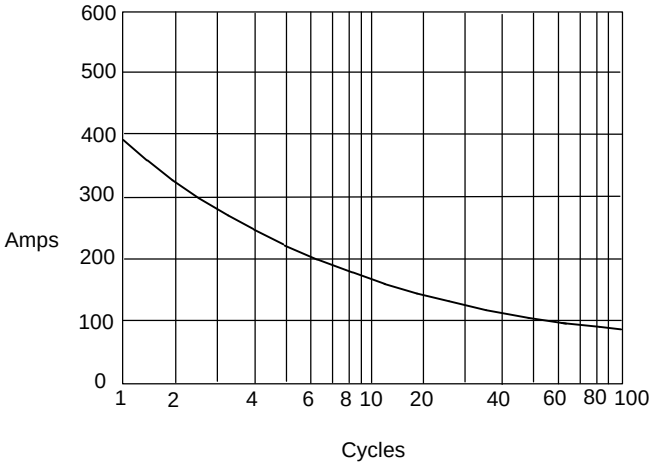

Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

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

## 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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