

**Obsolete**



Micro Commercial Components



Micro Commercial Components  
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# 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

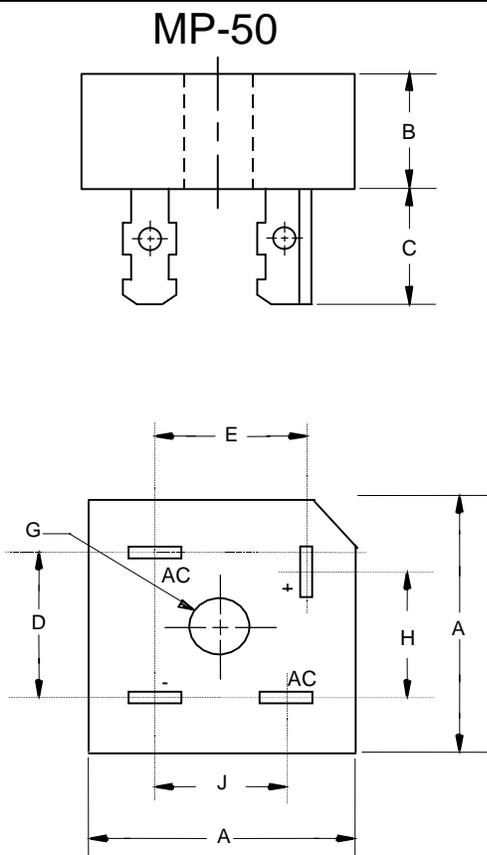
- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Mounting Torque: 20 in-lbs Maximum

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	$T_J = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	400A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	1.2V	$I_{FM} = 20\text{A}$ per element; $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 1.0mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$

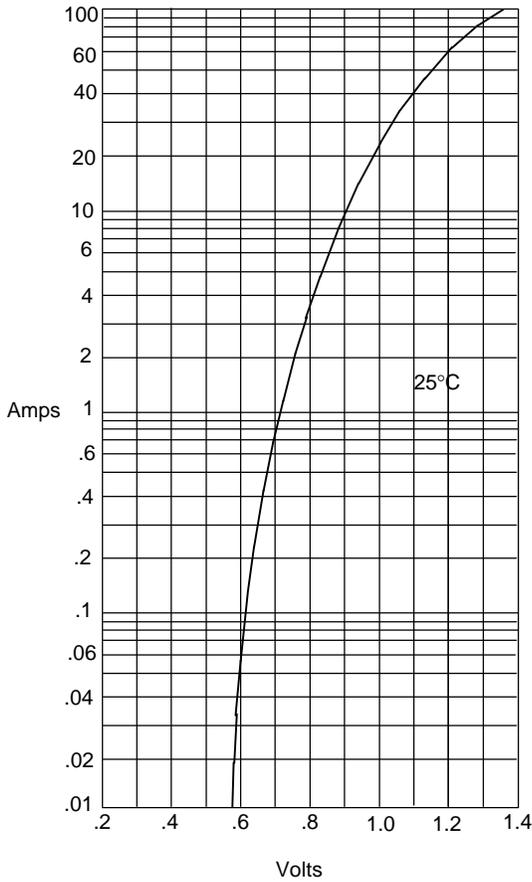
Note: 1.Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%  
2.Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%



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	

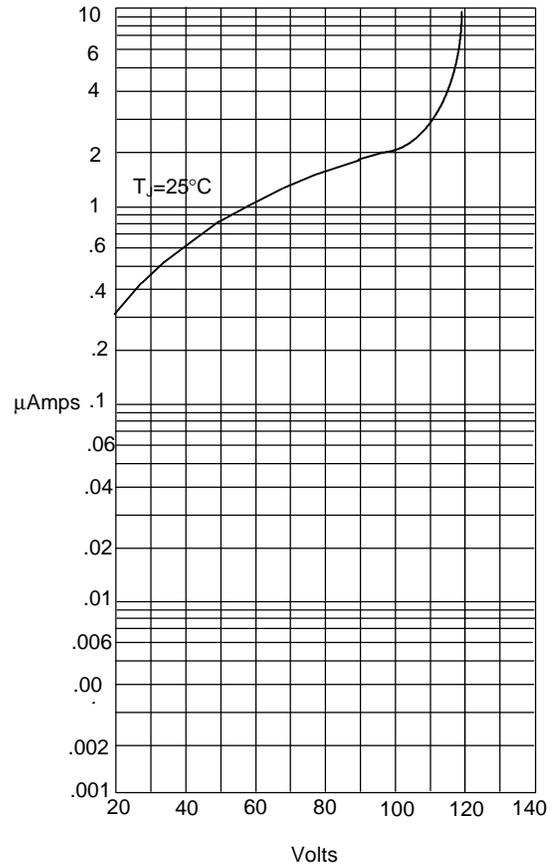
**MP4005 thru MP4010**

Figure 1  
Typical Forward Characteristics



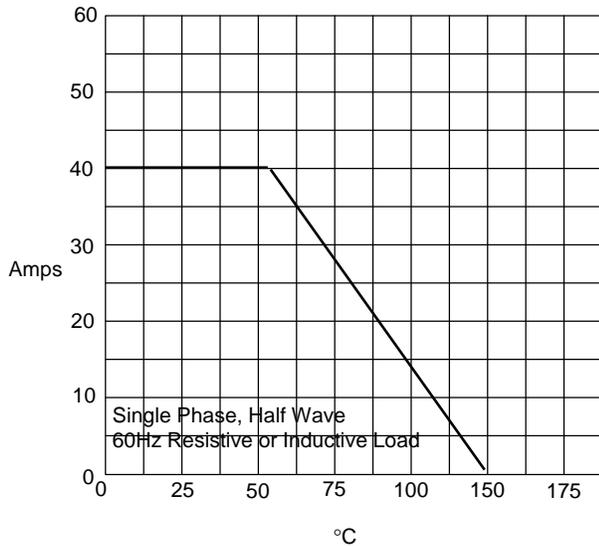
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



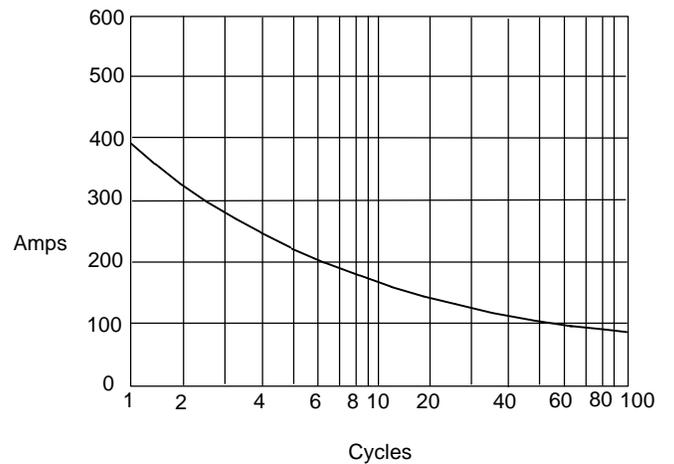
Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

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



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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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