



Micro Commercial Components



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# MP5005W THRU MP5010W

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

### Features

- Any Mounting Position
- Mounting Hole For #8 Screw
- Plastic Case with Metal Bottom
- 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

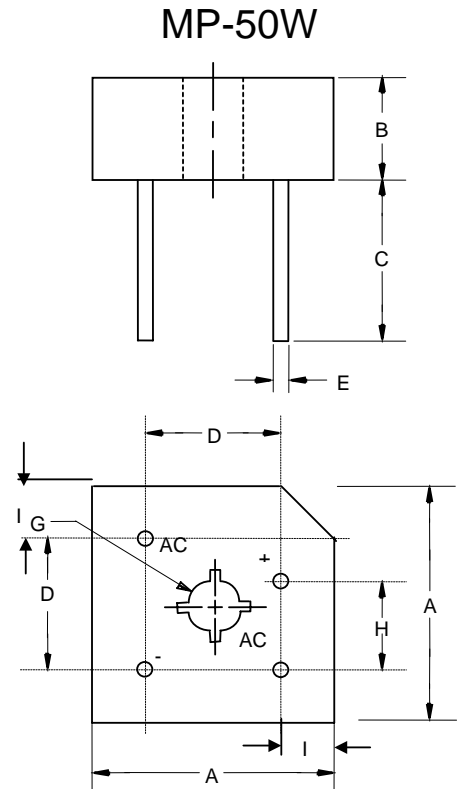
- Mounting Torque: 2.0 N.m, Tolerance: +/-10%
- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- UL Recognized File # E165989

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MP5005W	MP5005W	50V	35V	50V
MP501W	MP501W	100V	70V	100V
MP502W	MP502W	200V	140V	200V
MP504W	MP504W	400V	280V	400V
MP506W	MP506W	600V	420V	600V
MP508W	MP508W	800V	560V	800V
MP5010W	MP5010W	1000V	700V	1000V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50.0A	$T_C = 55^\circ\text{C}$
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; $T_J = 25^\circ\text{C}$ (Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 1.0mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Thermal Resistance	$R_{thJC}$	1.6°C/W	Per Leg

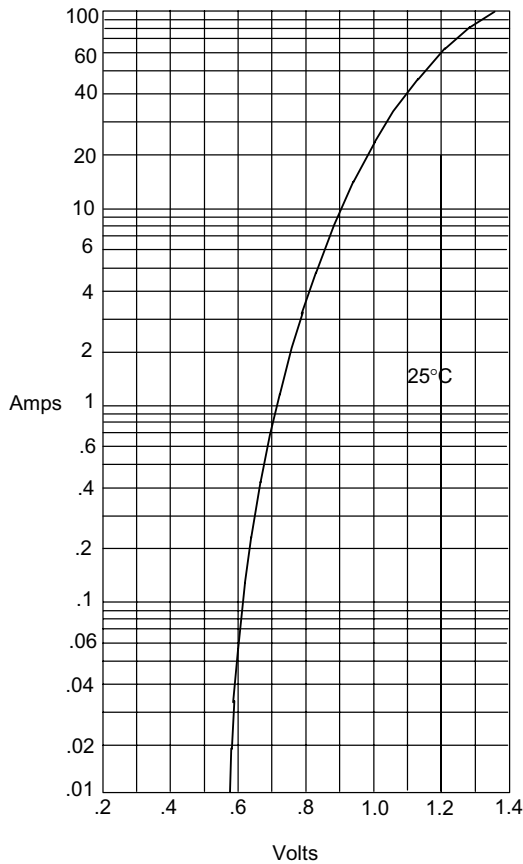
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7  
 2. Pulse Test: Pulse Width 300usec, Duty Cycle 1%



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	1.118	1.130	28.40	28.70	
B	.432	.442	10.97	11.23	
C	.769	---	19.53	---	
D	.673	.752	17.10	19.10	
E	.038	.042	.97	1.07	4PL/TYP
G	.193	---	4.90	---	∅
H	.429	.468	10.90	11.90	
I	.169	.236	4.30	6.00	

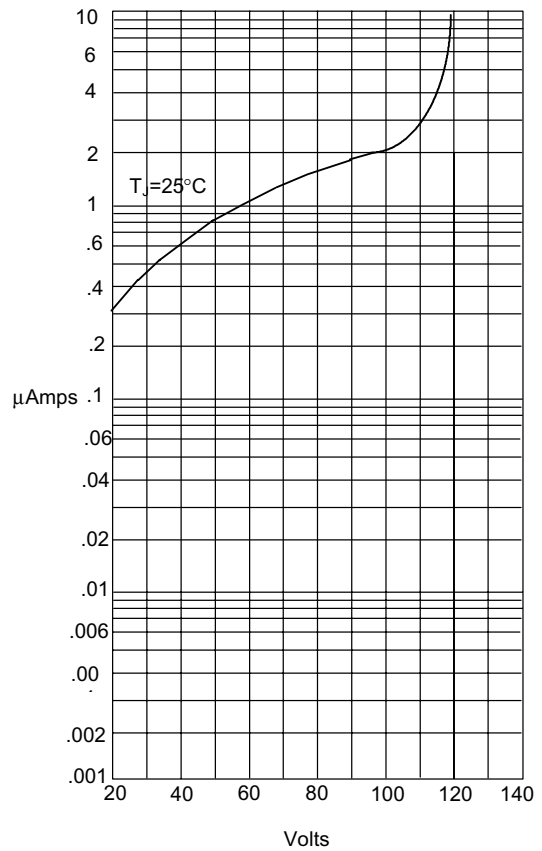
**MP5005W thru MP5010W**

Figure 1  
Typical Forward Characteristics



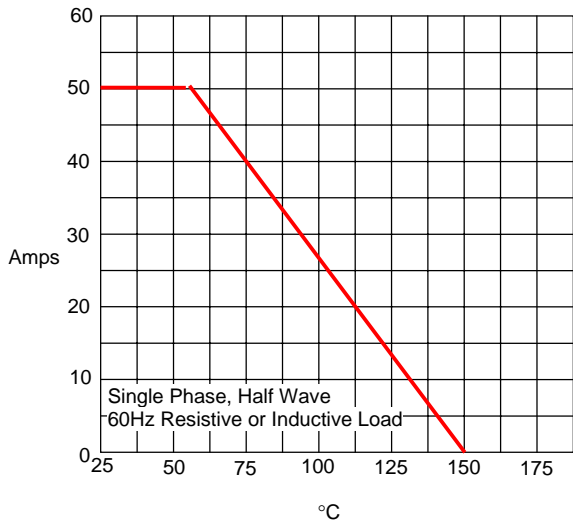
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



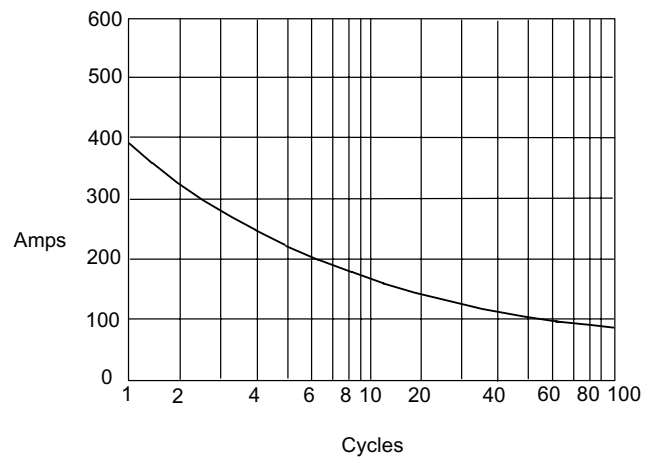
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

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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