

**M·C·C·**

Micro Commercial Components



Micro Commercial Components  
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**MB5005W**  
**THRU**  
**MB5010W**

## Features

- Mounting Hole For #8 Screw
- Plastic Case With Metal Bottom
- Any Mounting Position
- Surge Rating Of 400 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)
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

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

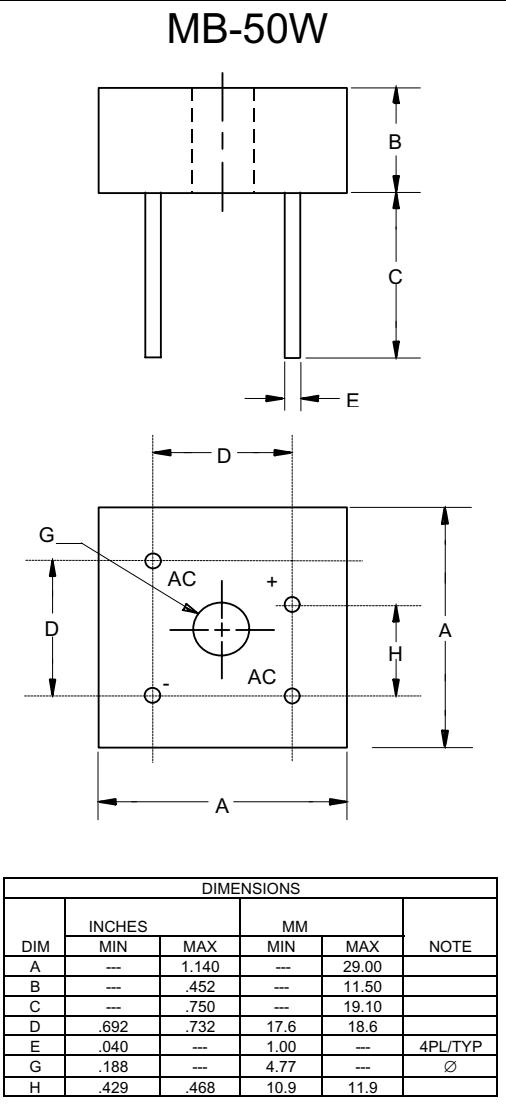
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB5005W	MB5005W	50V	35V	50V
MB501W	MB501W	100V	70V	100V
MB502W	MB502W	200V	140V	200V
MB504W	MB504W	400V	280V	400V
MB506W	MB506W	600V	420V	600V
MB508W	MB508W	800V	560V	800V
MB5010W	MB5010W	1000V	700V	1000V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50.0A	$T_J = 55^\circ C$
Peak Forward Surge Current	$I_{FSM}$	400A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	1.2V	$I_{FM} = 25A$ per element; $T_J = 25^\circ C$ (Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	$10\mu A$ $0.5mA$	$T_J = 25^\circ C$ $T_J = 100^\circ C$

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

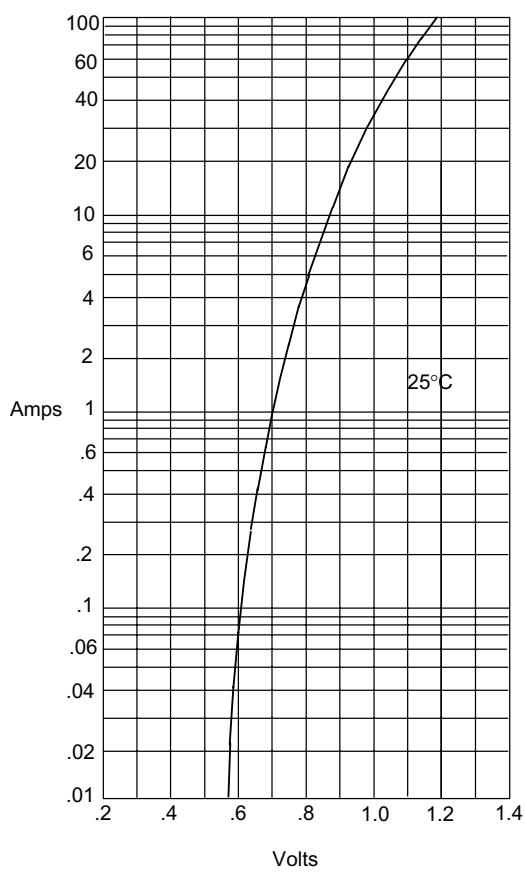
**50 Amp Single Phase Bridge Rectifier**  
**50 to 1000 Volts**



**www.mccsemi.com**

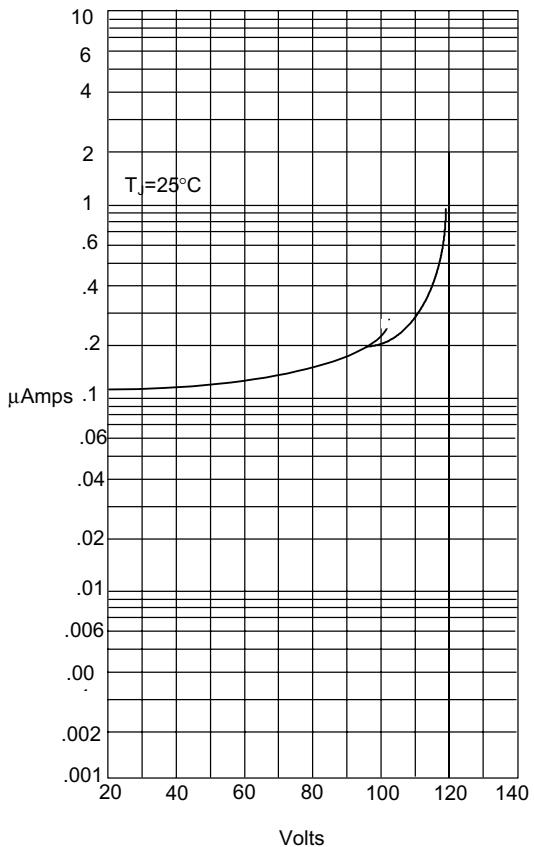
MB5005W thru MB5010W

Figure 1  
Typical Forward Characteristics



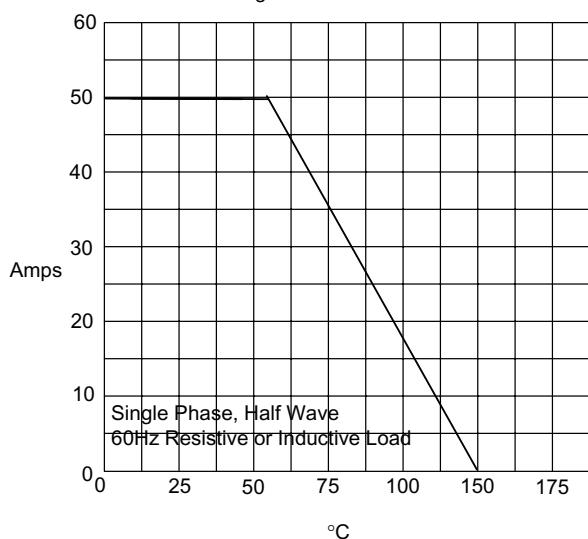
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Micro Commercial Components  
Typical Reverse Characteristics



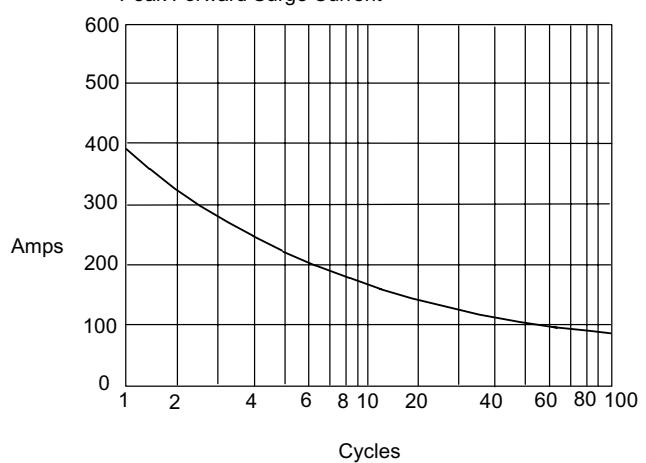
Instantaneous Reverse Leakage Current - MicroAmpere *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

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

<sup>TM</sup>

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## Ordering Information

Device (Part Number)-BP	Packing Bulk;400Pcs/Ctn
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Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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