



Micro Commercial Components

Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# MB5005 THRU MB5010

## Features

- Case to Terminal Isolation Voltage 2500V (RMS)
- High Conductivity Metal Case
- Any Mounting Position
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

- Surge Rating Of 400 Amps
- Mounting Hole For #8 Screw
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

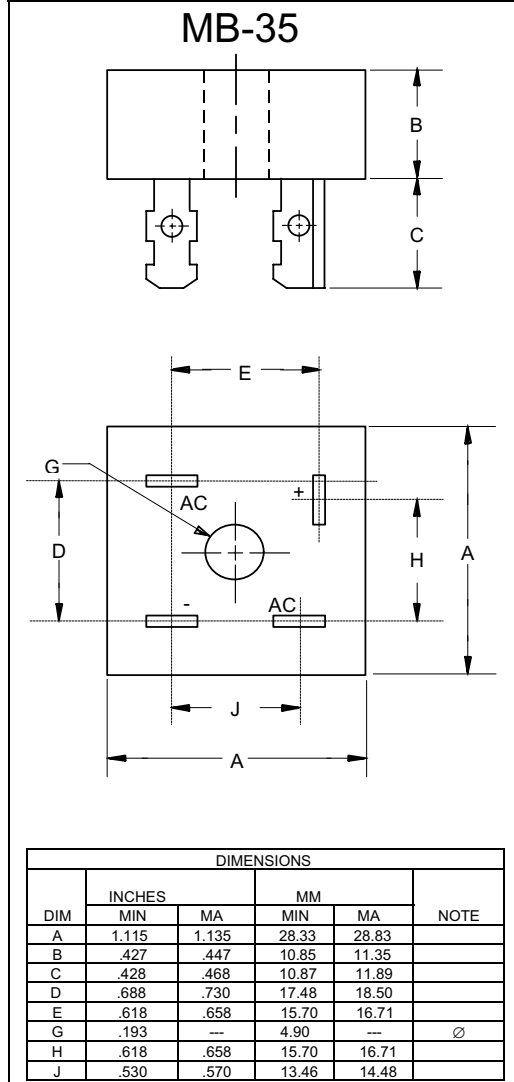
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB5005	MB5005	50V	35V	50V
MB501	MB501	100V	70V	100V
MB502	MB502	200V	140V	200V
MB504	MB504	400V	280V	400V
MB506	MB506	600V	420V	600V
MB508	MB508	800V	560V	800V
MB5010	MB5010	1000v	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	$I_{FM} = 25A$ per element; $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10µA 1mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Thermal Resistance Junction to Case (Note 1)	$R_{\theta JC}$	1.5K/W	Per element

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7  
 2. Thermal resistance junction to case mounted on heatsink.

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



## MB5005 thru MB5010

Figure 1  
Typical Forward Characteristics

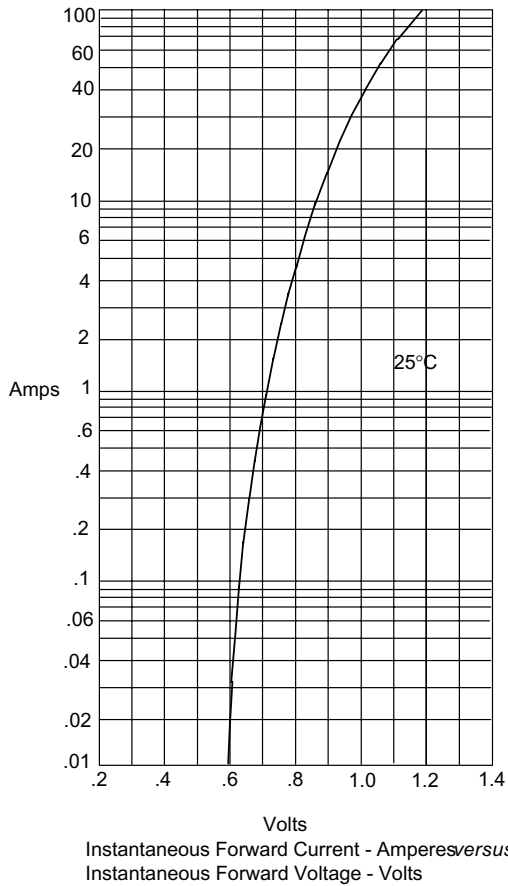


Figure 2  
Typical Reverse Characteristics

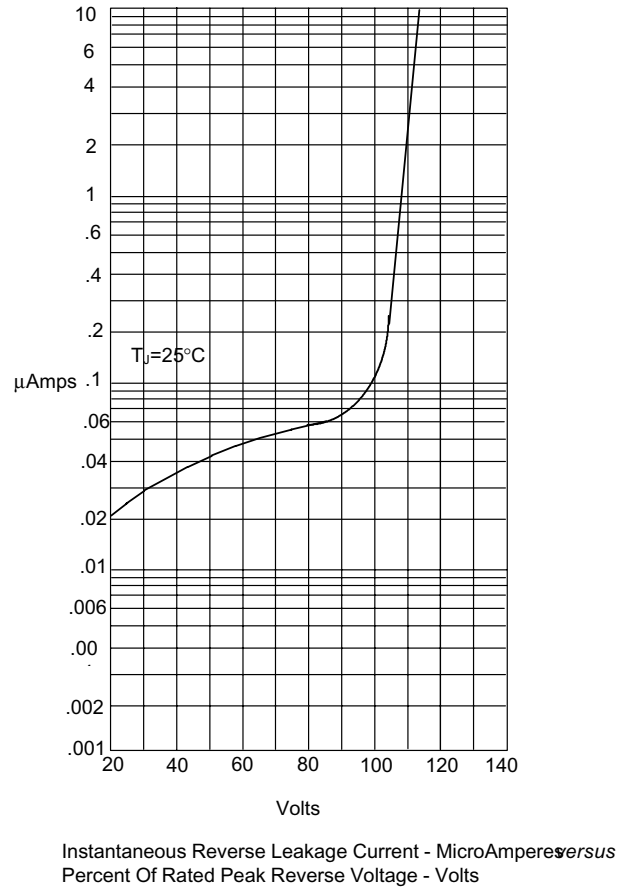


Figure 3  
Forward Derating Curve

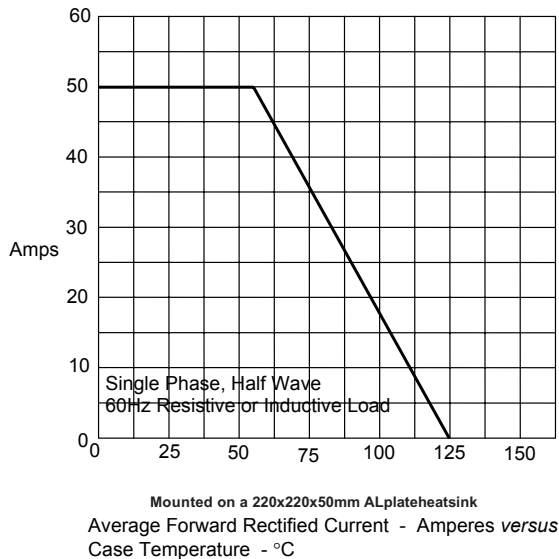
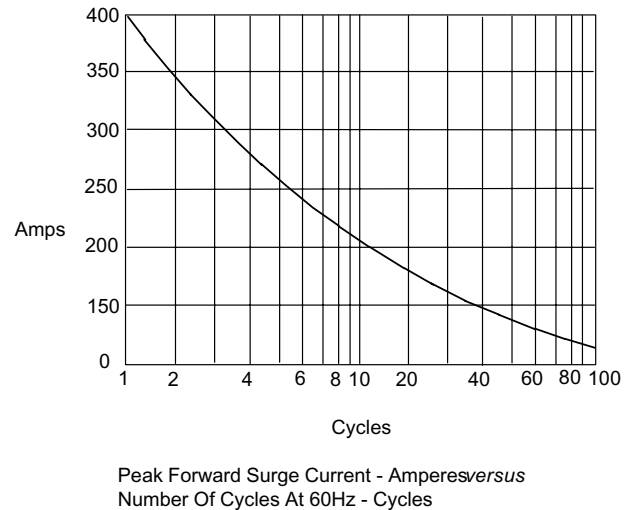


Figure 4  
Peak Forward Surge Current





Micro Commercial Components

## Ordering Information

Device	Packing
(Part Number)-BP	Bulk;50pcs/Box

**\*\*\*IMPORTANT NOTICE\*\*\***

*Micro Commercial Components Corp.* reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

**\*\*\*APPLICATIONS DISCLAIMER\*\*\***

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.