



Micro Commercial Components



Micro Commercial Components
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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

- Mounting Torque: 20 in-lbs Maximum
- 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

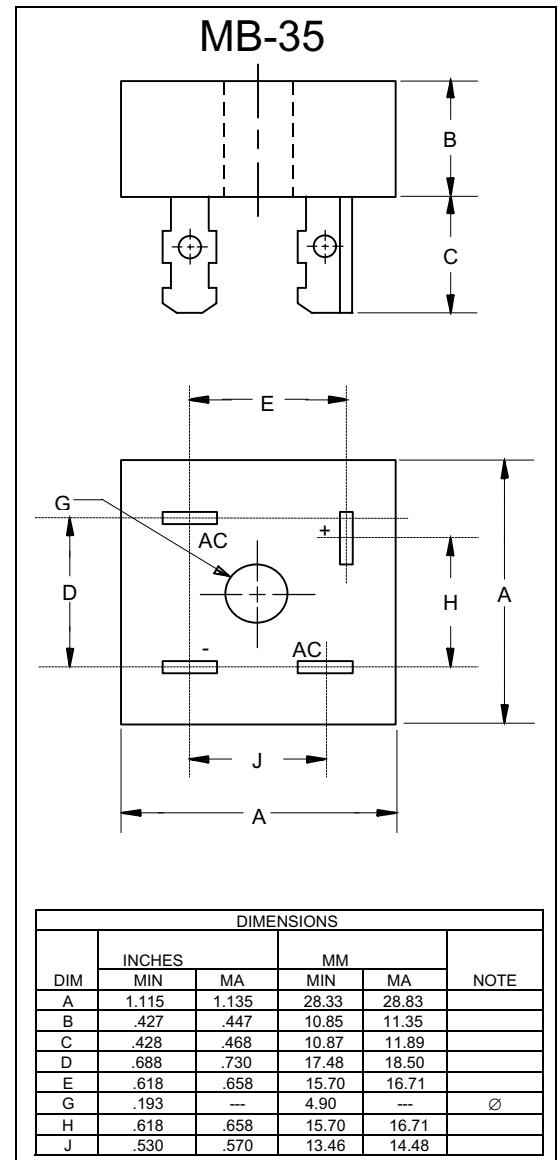
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB5005	MB5005	50V	35V	50V
MB501	MB501	100V	70V	100V
MB502	MB502	200V	140V	200V
MB504	MB504	400V	280V	400V
MB506	MB506	600V	420V	600V
MB508	MB508	800V	560V	800V
MB5010	MB5010	1000v	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	$I_{FM} = 25\text{A per element}; T_J = 25^\circ\text{C}$
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

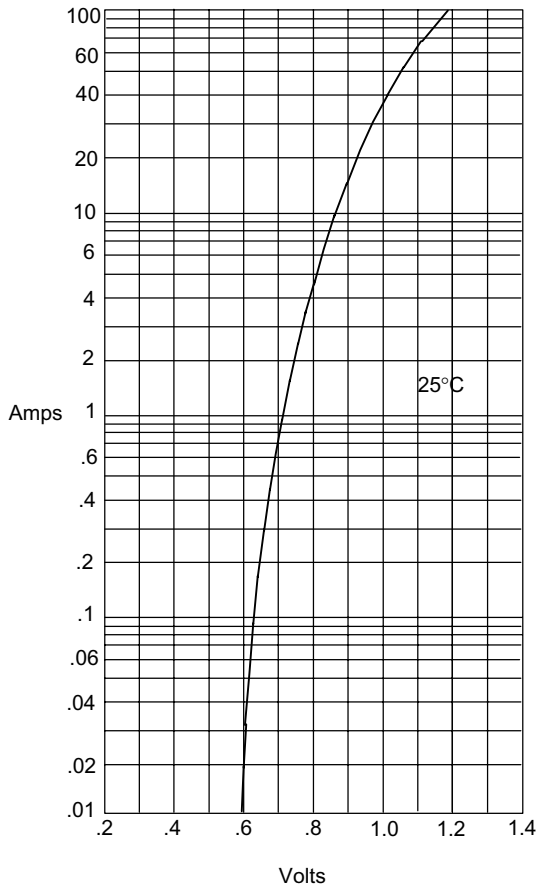
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7
 2. Thermal resistance junction to case mounted on heatsink.

50 Amp Single Phase Bridge Rectifier 50 to 1000 Volts



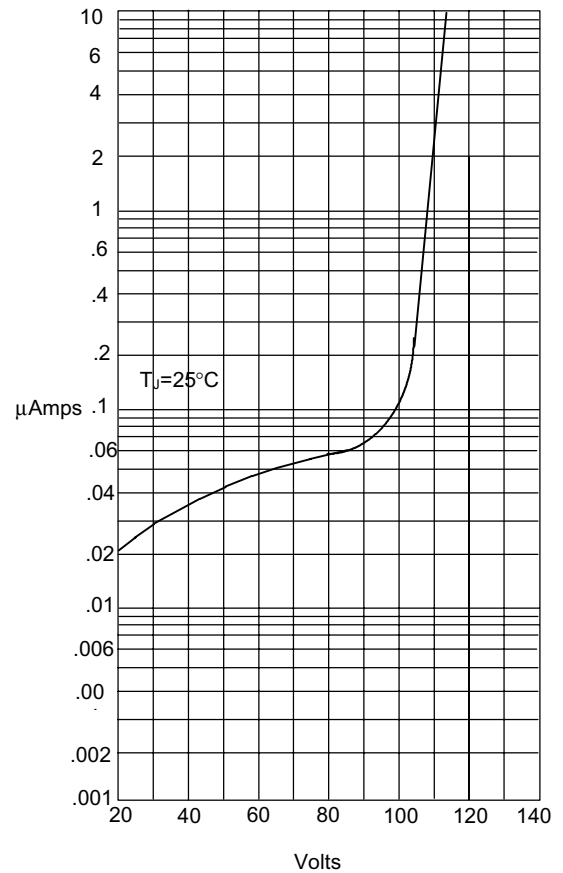
MB5005 thru MB5010

Figure 1
Typical Forward Characteristics



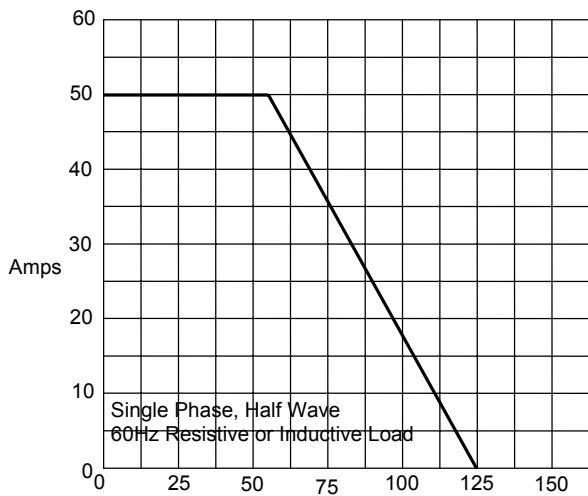
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



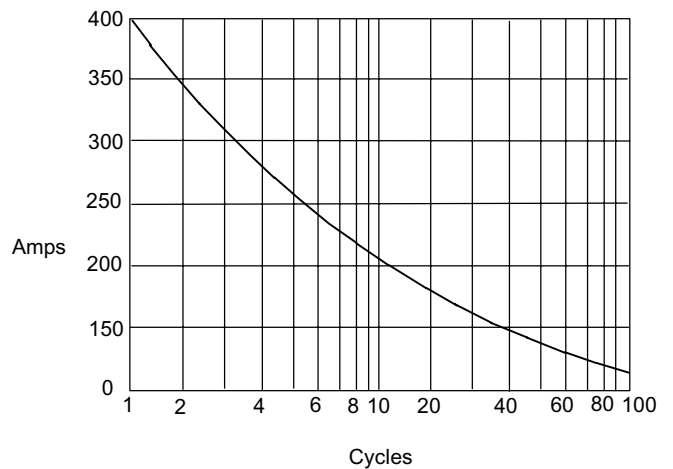
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Mounted on a 220x220x50mm ALplate heatsink
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 (Part Number)-BP	Packing Bulk;400Pcs/Ctn
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