Micro Commercial Components
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MP5005 THRU MP5010

50 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 500 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 inch-lbs max.
- Typical Thermal Resistance: R_{thJC}=2.0°C/W

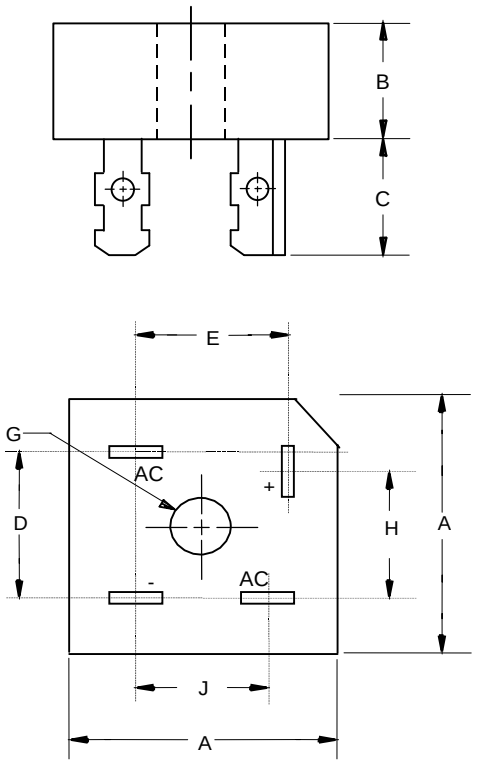
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MP5005	MP5005	50V	35V	50V
MP501	MP501	100V	70V	100V
MP502	MP502	200V	140V	200V
MP504	MP504	400V	280V	400V
MP506	MP506	600V	420V	600V
MP508	MP508	800V	560V	800V
MP5010	MP5010	1000v	700V	1000v

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50.0A	T_a = 55°C
Peak Forward Surge Current	I_{FSM}	500A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	V_F	1.2V	I_{FM} = 25A per element; T_J = 25°C (Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10µA 1.0mA	T_J = 25°C T_J = 100°C

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

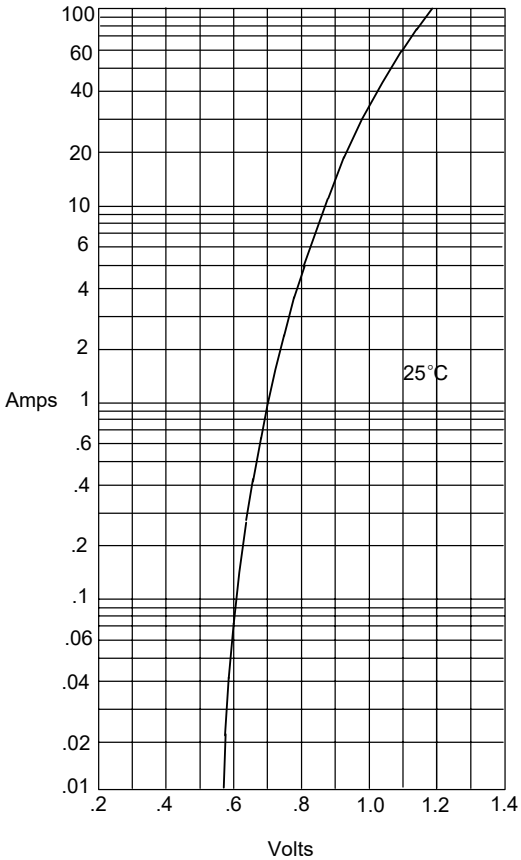
MP-50



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	

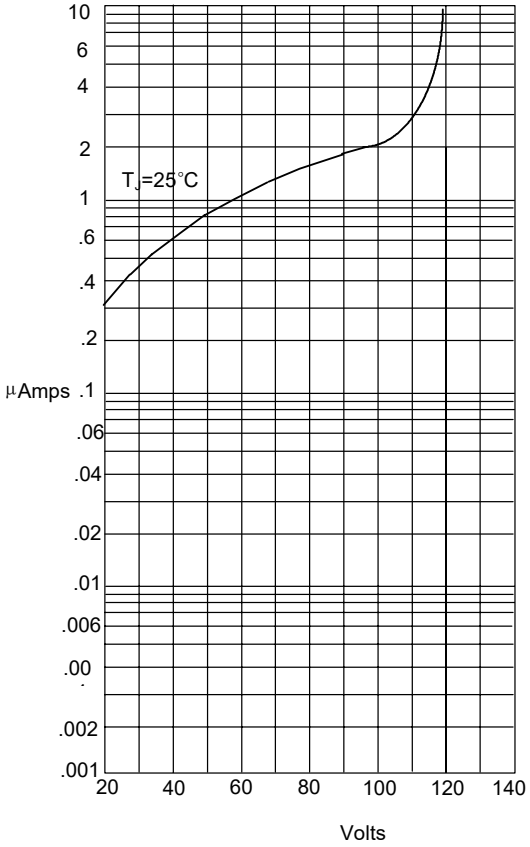
MP5005 thru MP5010

Figure 1
Typical Forward Characteristics



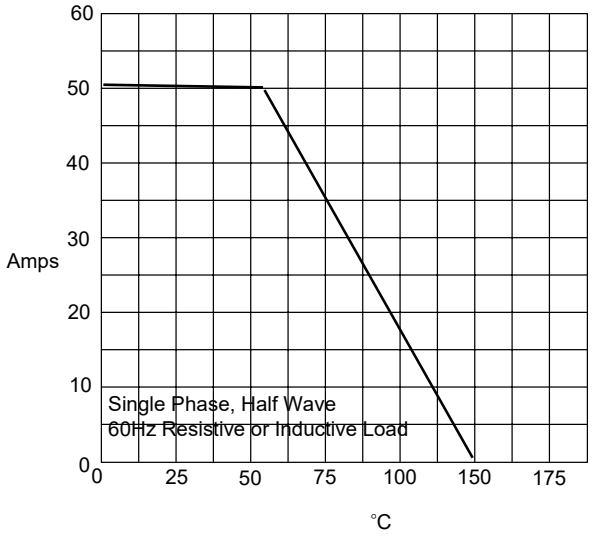
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



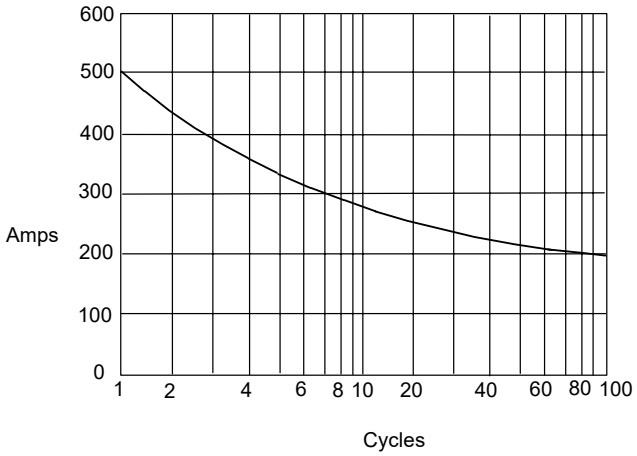
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

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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