



**Features**

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Plastic Case With Metal Bottom

**Maximum Ratings**

- Operating Junction Temperature Range: -50°C to +150°C
- Storage Temperature Range: -50°C to +150°C
- Typical Thermal Resistance: 2.0°C/W Junction to Case

**Mechanical Data**

- Mounting Torque: 2.0 inch-lbs Max.
- Mounting Hole For #8 Screw

MCC Part 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

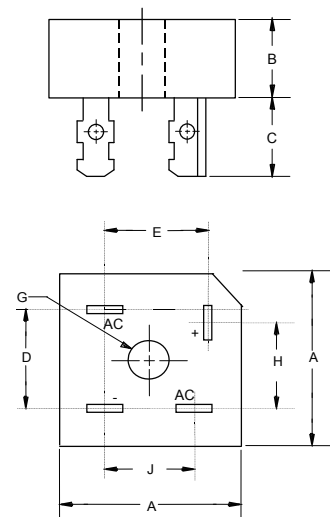
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	50.0A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	500A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element	$V_F$	1.2V	$I_{FM} = 25A ; T_J = 25^\circ\text{C}$ (Note 2)
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10 $\mu$ A 1.0mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$

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

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

MP-50



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.118	1.130	28.40	28.70	
B	0.432	0.442	10.97	11.23	
C	0.468	0.558	11.89	14.17	
D	0.689	0.728	17.50	18.50	
E	0.618	0.657	15.70	16.70	
G	0.193	---	4.90	---	$\Phi$
H	0.618	0.657	15.70	16.70	
J	0.531	0.571	13.50	14.50	

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

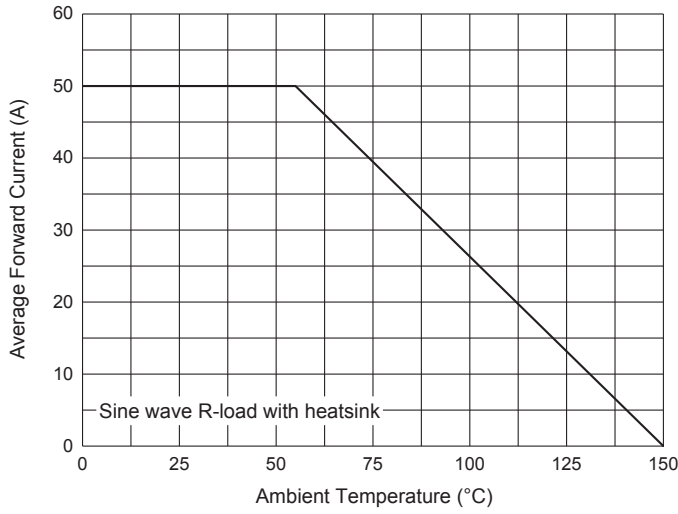


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

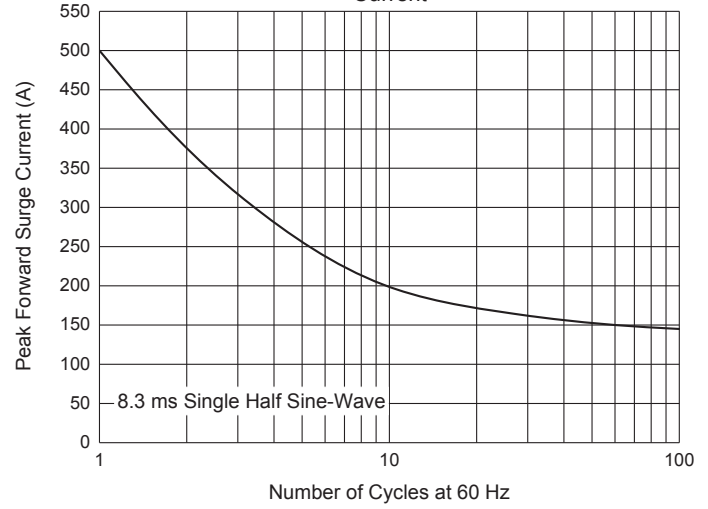


Fig. 3 - Typical Instantaneous Forward Characteristics

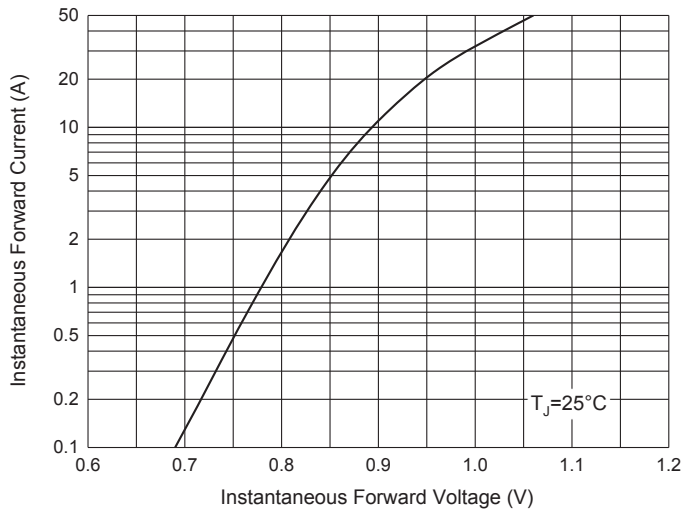
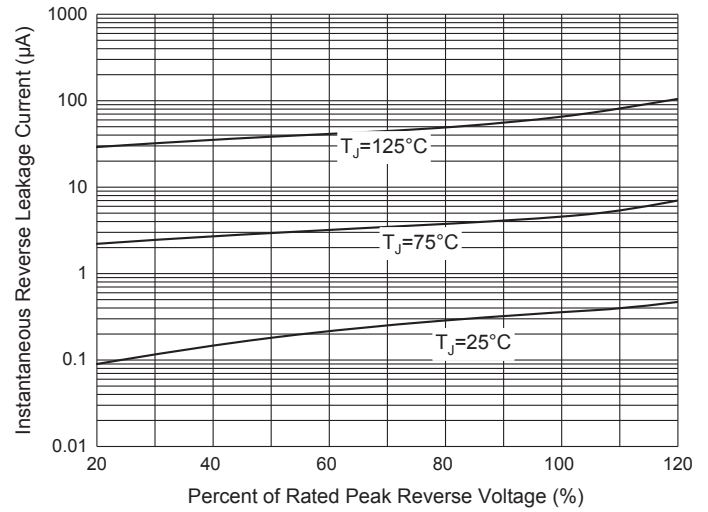


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk: 50Pcs/Box, 400Pcs/Ctn

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