



Micro Commercial Components  
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## MB5005 THRU MB5010

### Features

- Mounting Hole For #8 Screw
- Plastic Case With Metal Bottom
- Any Mounting Position
- Surge Rating Of 400 Amps

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

### Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

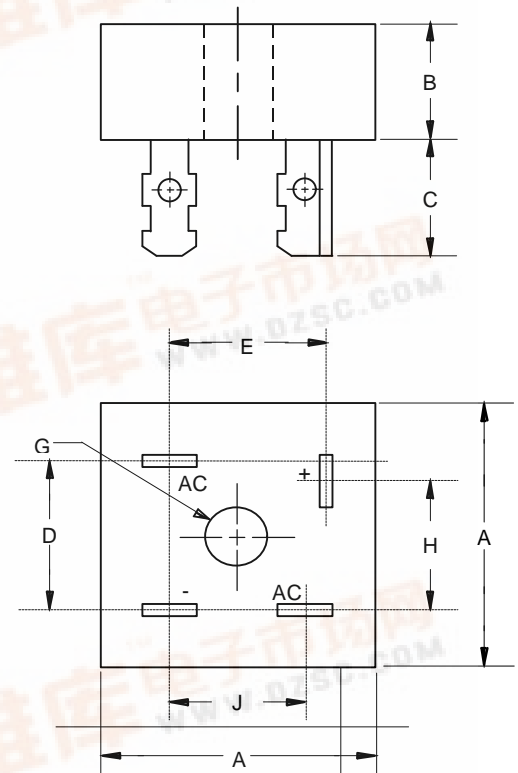
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB5005	MB5005	50V	35V	50V
MB501	MB501	100V	70V	100V
MB502	MB502	200V	140V	200V
MB504	MB504	400V	280V	400V
MB506	MB506	600V	420V	600V
MB508	MB508	800V	560V	800V
MB5010	MB5010	1000v	700V	1000v

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

Average Forward Current	$I_{F(AV)}$	50.0A	$T_J = 55^\circ\text{C}$
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	$I_R$	10 $\mu\text{A}$ 0.5mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

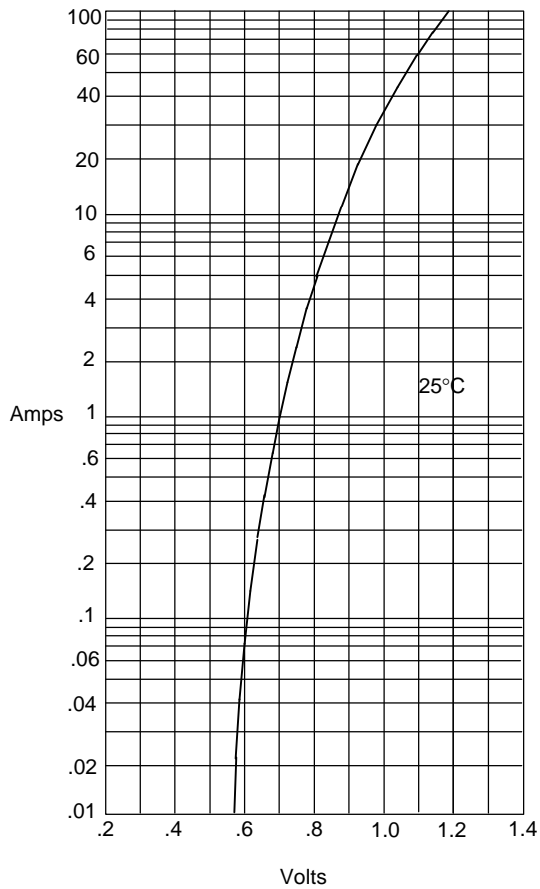
MB-50



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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	---	Ø
H	.633	.673	16.10	17.10	
J	.543	.582	13.80	14.80	

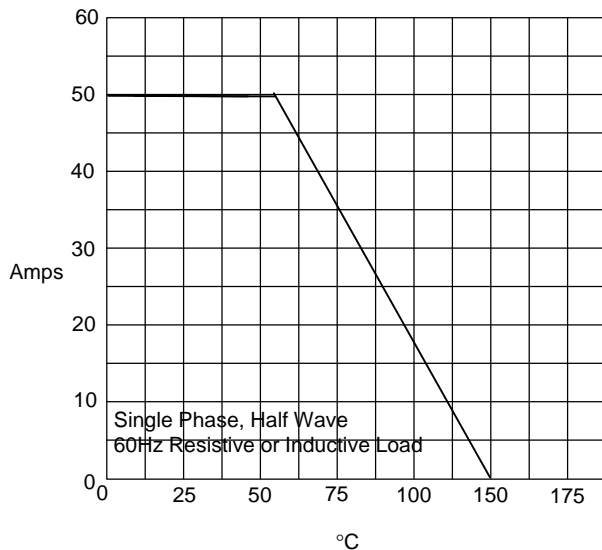
## MB5005 thru MB5010

Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

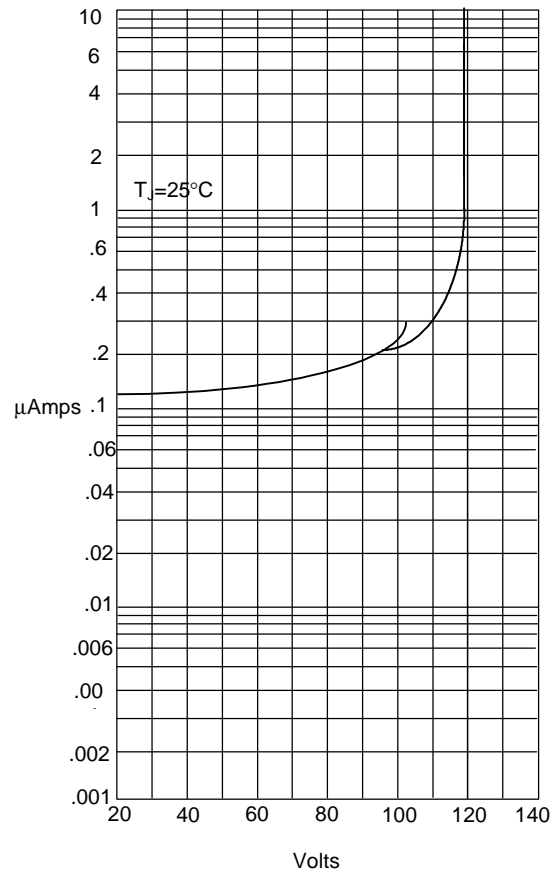
Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

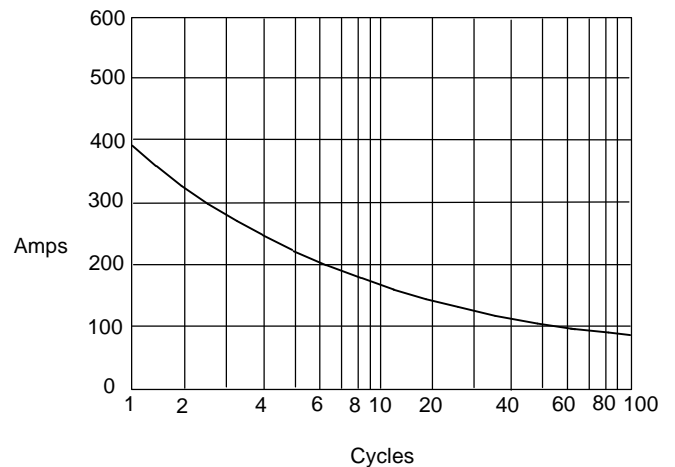
**M.C.C.**

Figure 2  
Typical Reverse Characteristics



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

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles