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**MB05S  
THRU  
MB10S**

## Features

- Surface Mount Package
- Glass Passivated Diode Construction
- Moisture Resistant Epoxy Case
- High Surge Current Capability

**0.5Amp Single Phase  
Glass Passivated  
Bridge Rectifier  
50 to 1000 Volts**

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

MCC Catalog Number	Device Marking	Maximum Rccurent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB05S	MB05S	50V	35V	50V
MB1S	MB1S	100V	70V	100V
MB2S	MB2S	200V	140V	200V
MB4S	MB4S	400V	280V	400V
MB6S	MB6S	600V	420V	600V
MB8S	MB8S	800V	560V	800V
MB10S	MB10S	1000V	700V	1000V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

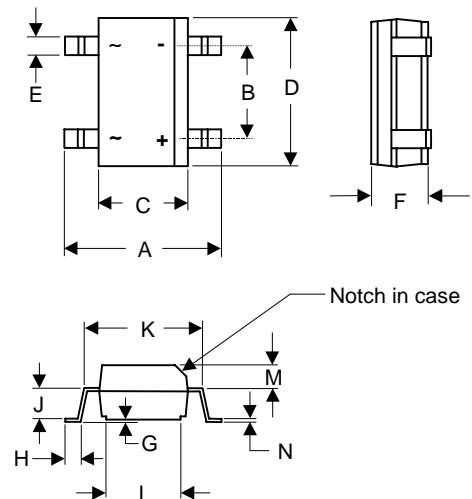
Average Forward Current	$I_{F(AV)}$	0.5A 0.8A	Note1 $T_A = 30^\circ\text{C}$ Note2 $T_A = 30^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.0V	$I_{FM} = 0.5\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5 $\mu\text{A}$	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	25pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

Note1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

Note2. On alum: substrate P.C.B with an rea of 0.8 x 0.8 x 0.25"  
( 20 x 20 x 6.4mm ) mounte on 0.05 x 0.05 "( 13 x 13 mm )  
solder pad.

\*Pulse Test: Pulse Width 300 $\mu\text{sec}$ , Duty Cycle 1%

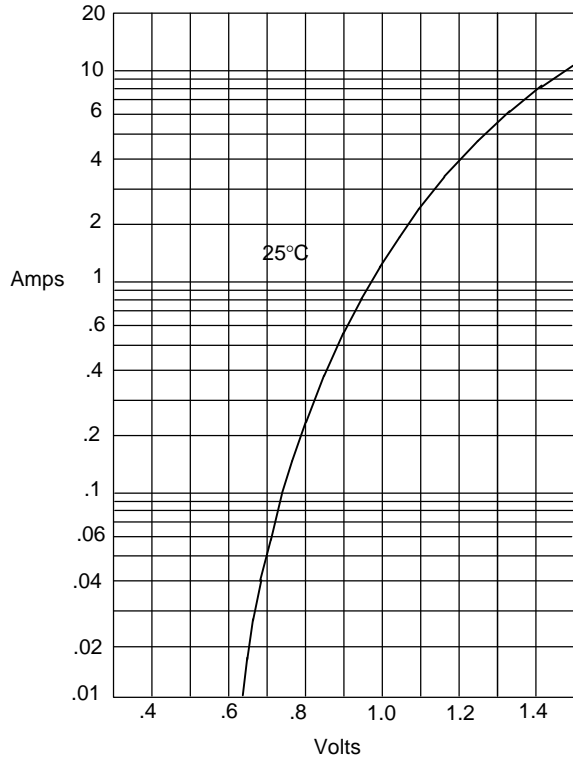
## MBS -1



DIM	DIMENSIONS				NOTE
	INC HES		MM		
	MIN	MAX	MIN	MAX	
A	.252	.272	6.40	6.91	
B	.095	.105	2.41	2.67	
C	1.45	.155	3.68	3.94	
D	.180	.190	4.57	4.83	
E	.017	.029	0.45	0.75	
F	.090	.106	2.30	2.70	
G	.004	.008	0.10	0.20	
H	.021	.023	0.53	0.58	
J	.055	.065	1.40	1.65	
K	----	.200	----	5.08	
L	.107	.117	2.72	2.97	
M	.040	.050	1.02	1.27	
D	.008	.014	0.15	0.35	

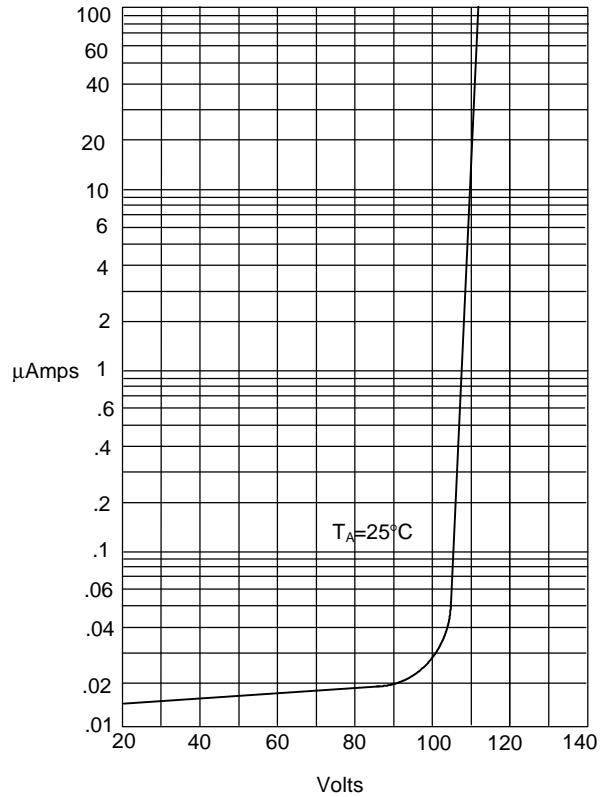
MB05S thru MB10S

Figure 1  
Typical Forward Characteristics



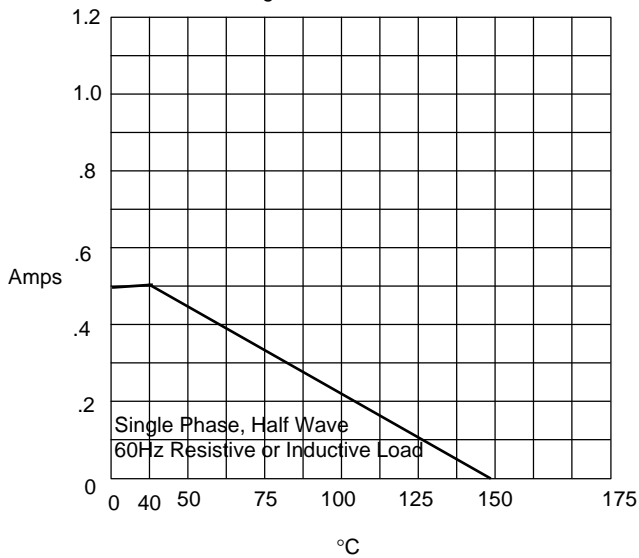
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



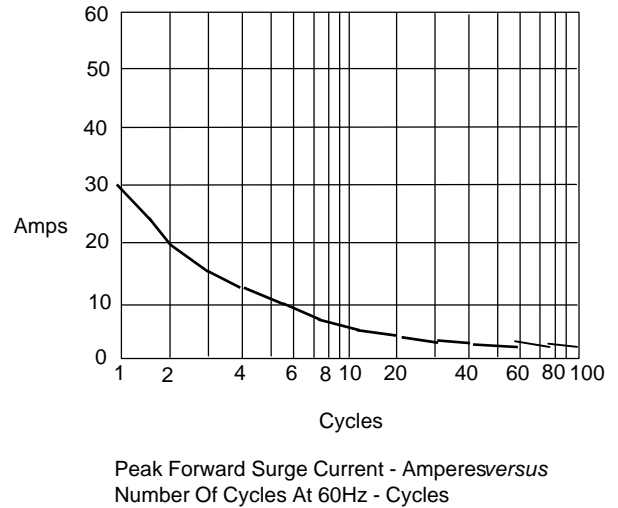
Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

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