

**Micro Commercial Components** 

**Micro Commercial Components** 20736 Marilla Street Chatsworth CA 91311 Phone: (818) 701-4933 (818) 701-4939 Fax:

### Features

- **Glass Passivated Diode Construction**
- High Temperature Soldering Guaranteed:260°C/10 Second
- Saves Space On Printed Circuit Board

### cal Data

- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information) Epoxy meets UL 94 V-0 flammability rating and MSL Rating 1
- per J-STD-020C
- Teminals: Plated leads Solderable per MIL-STD-750, Method 2026
- UL Recognized File # E165989

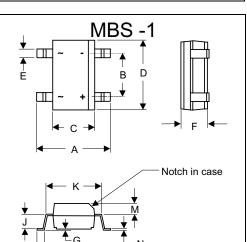
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB05S	MB05S	50V	35V	50V
MB1S	MB1S	100V	70V	100V
MB2S	MB2S	200V	140V	200V
MB4S	MB4S	400V	280V	400V
MB6S	MB6S	600V	420V	600V
MB8S	MB8S	800V	480V	800V
MB10S	MB10S	1000V	700V	1000V

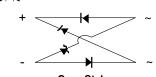
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I <sub>F(AV)</sub>	0.5 A <sup>(2)</sup> 0.8 A <sup>(3)</sup>	See Fig.1			
Peak Forward Surge Current	I <sub>FSM</sub>	35A	8.3ms, half sine			
Maximum Instantaneous Forward Voltage	$V_{F}$	1.0V	$I_{FM} = 0.4A;$ $T_A = 25^{\circ}C$			
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5uA 100uA	$T_{A} = 25^{\circ}C$ $T_{A} = 125^{\circ}C$			
Typical Thermal Resistance	R <sub>thJA</sub> R <sub>thJA</sub> R <sub>thJL</sub>	85°C/W <sup>(2)</sup> 70°C/W <sup>(3)</sup> 20°C/W <sup>(2)</sup>	per leg			
Typical Junction Capacitance	CJ	13pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V			
Rating For Fusing	l <sup>2</sup> t	5.0A <sup>2</sup> s	t<8.30ms			
Operating Junction and Storage Temperature Range	T <sub>J</sub> T <sub>STG</sub>	-55to+150 °c				

# **MB05S** THRU **MB10S**

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

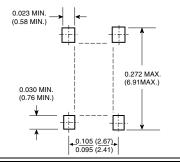




Case Style

DIMENSIONS						
	INCHES		ММ			
DIM	MIN	MAX	MIN	MAX	NOTE	
A	.252	.272	6.40	6.90		
В	.095	.106	2.41	2.70		
С	.150	.165	3.80	4.20		
D	.179	.195	4.55	4.95		
E	.019	.031	0.50	0.80		
F	.090	.106	2.30	2.70		
G	.004	.008	0.10	0.20		
Н	.027	.043	0.70	1.10		
J	.058	.062	1.47	1.57		
K	.195	.205	4.95	5.21		
М	.039	.049	0.99	1.24		
N	.006	.016	0.15	0.41		

#### Mounting Pad Layout



Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

> On glass epoxy P.C.B. mounted on 0.05 x 0.05"(1.3 x 1.3mm)pads 2.

On aluminum substrate P.C.B. with an area of 0.8" x 0.8"(20 x 20mm) mounted 3. on 0.05 x 0.05"(1.3x 1.3mm) solder pad

www.mccsemi.con



**Micro Commercial Components** 

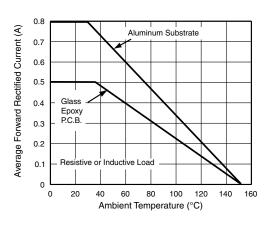
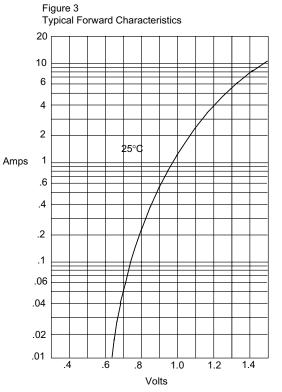
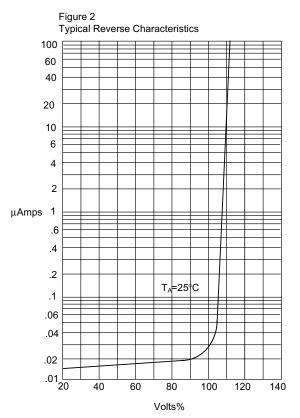


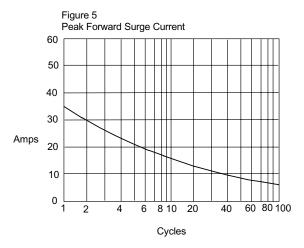
Figure 1. Derating Curve for Output Rectified Current



Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts



Instantaneous Reverse Leakage Current - MicroAmperesersus Percent Of Rated Peak Reverse Voltage - Volts%



Peak Forward Surge Current - Amperes versus Number Of Cycles At 50Hz - Cycles

## www.mccsemi.com

**Revision: 15** 



### **Ordering Information**

Device	Packing
(Part Number)-TP	Tape&Reel3Kpcs/Reel

#### \*\*\*IMPORTANT NOTICE\*\*\*

Micro Commercial Components Corp . reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes .
Micro Commercial Components Corp . does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold Micro Commercial Components Corp . and all the companies whose products are represented on our website, harmless against all damages.

### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems

without the expresse written approval of Micro Commercial Components Corporation.

## www.mccsemi.com