Micro Commercial Components

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

MBL1S THRU MBL10S

0.5 Amp Single Phase Glass Passivated Bridge Rectifier 100 to 1000 Volts

Features

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

Mechanical Data

- Teminals: Plated leads Solderable per MIL-STD-750,Method 2026

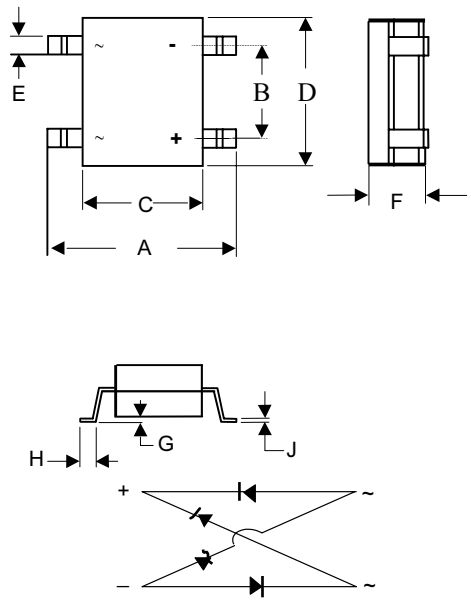
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBL1S	BL1S	100V	70V	100V
MBL2S	BL2S	200V	140V	200V
MBL4S	BL4S	400V	280V	400V
MBL6S	BL6S	600V	420V	600V
MBL8S	BL8S	800V	480V	800V
MBL10S	BL10S	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	0.5 A(2) 0.8 A(3)	See Fig.1
Peak Forward Surge Current	I_{FSM}	35A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.0V	I_{FM} = 0.4A; T_A = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10uA	T_A = 25°C
Typical Thermal Resistance	R_{thJA} R_{thJA} R_{thJL}	134°C/W(2) 76°C/W(3) 20°C/W(2)	per leg
Typical Junction Capacitance	C_J	13pF	Measured at 1.0MHz, V_R=4.0V
Rating For Fusing	I^2t	5.1A²s	t<8.30ms
Operating Junction and Storage Temperature Range	T_J T_{STG}	-55to+150 °C	

Notes:
1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7
2. On glass epoxy P.C.B. mounted on 0.05 x 0.05"(1.3 x 1.3mm)pads
3. On aluminum substrate P.C.B. with an area of 0.8" x 0.8"(20 x 20mm) mounted on 0.05 x 0.05"(1.3x 1.3mm) solder pad

MBLS -1



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.252	.283	6.40	7.20	
B	.087	.102	2.20	2.60	
C	.142	.193	3.60	4.90	
D	.177	.200	4.50	5.10	
E	.022	.033	0.55	0.84	
F	.045	.063	1.15	1.60	
G	.000	.008	0.00	0.20	
H	.016	.043	0.40	1.10	
J	.004	.016	0.10	0.35	

Figure 1. Derating Curve for Output Rectified Current

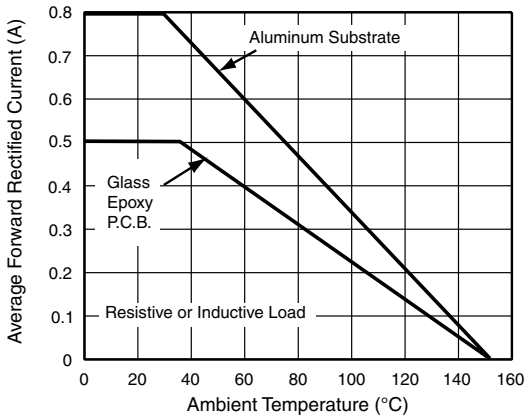
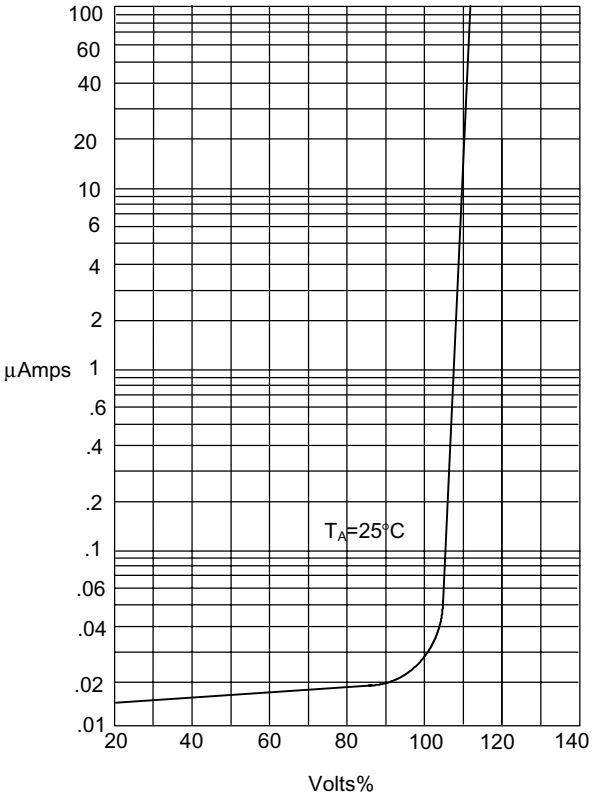
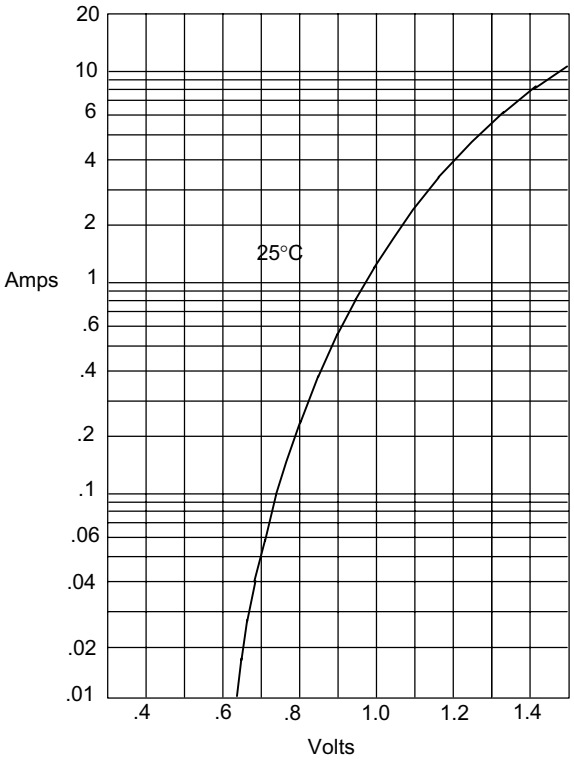


Figure 2
Typical Reverse Characteristics



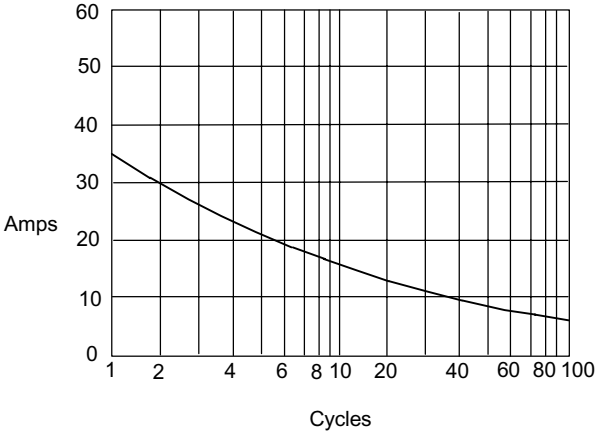
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts%

Figure 3
Typical Forward Characteristics



Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 5
Peak Forward Surge Current



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

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Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;4Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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