



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

MB05S - MB10S

50 TO 1000V

Features

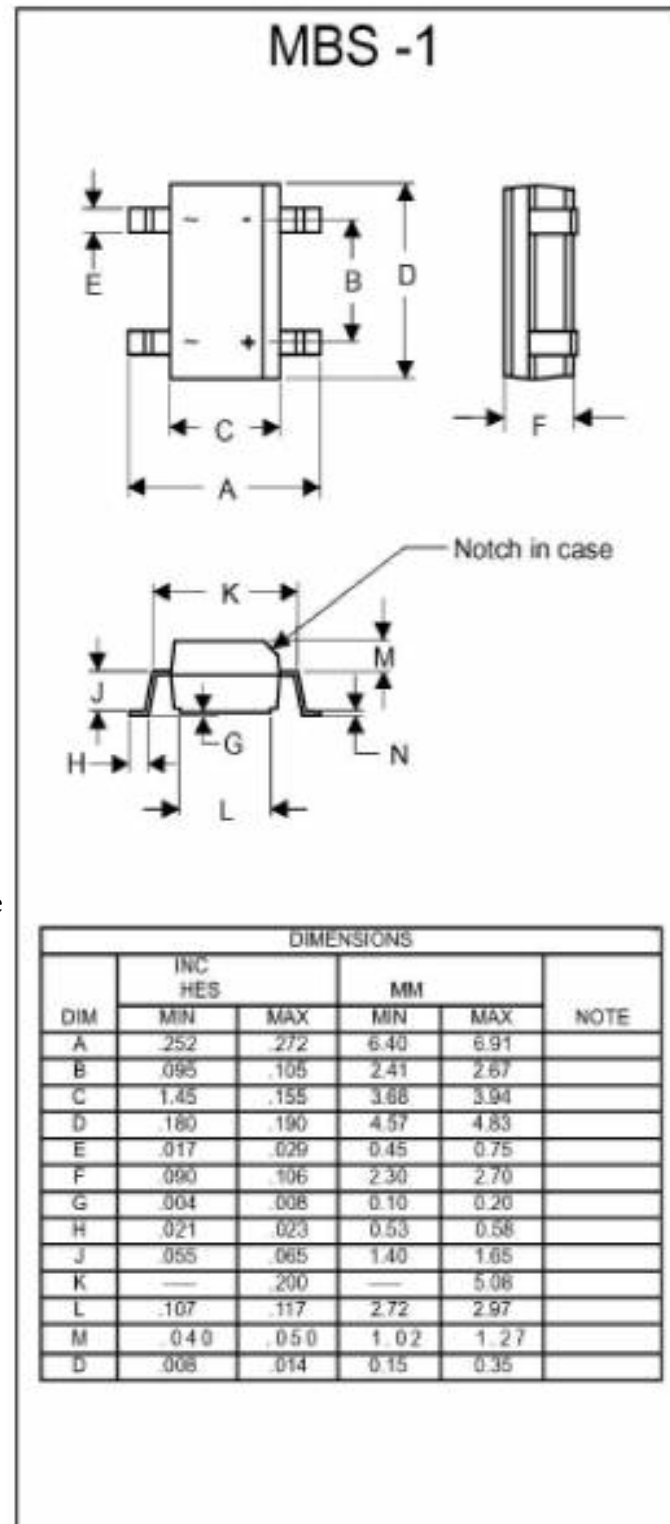
Surface Mount Package
Glass passivated Diode Construction
Moisture Resistant Epoxy Case
High Surge Current Capability

Maximum Ratings

Operating Temperature:-55°C to +150°C

Storage Temperature:-55°C to +150°C

MCC Catalog Number	Device Marking	Maximum Rcurrent 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 $T_A = 40^\circ\text{C}$ Note2 $T_A = 40^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM}=0.5A$; $T_A=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5uA	$T_A=25^\circ\text{C}$
Typical Junction Capacitance	C_J	25pF	Measured at 1.0MHz, $V_R=4.0V$

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

Note2. On alum: substrate P.C.B with an area of $0.8 \times 0.8 \times 0.25$
($20 \times 20 \times 6.4\text{mm}$) mounted on 0.05×0.05 (13 * 13 mm)
solder pad.

*Pulse Test: Pulse Width 300u sec, Duty Cycle 1%



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Figure 1
Typical Forward Characteristics

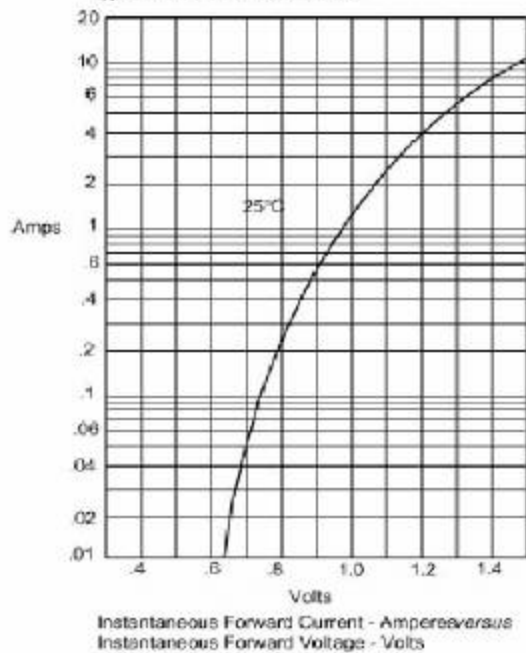


Figure 2
Typical Reverse Characteristics

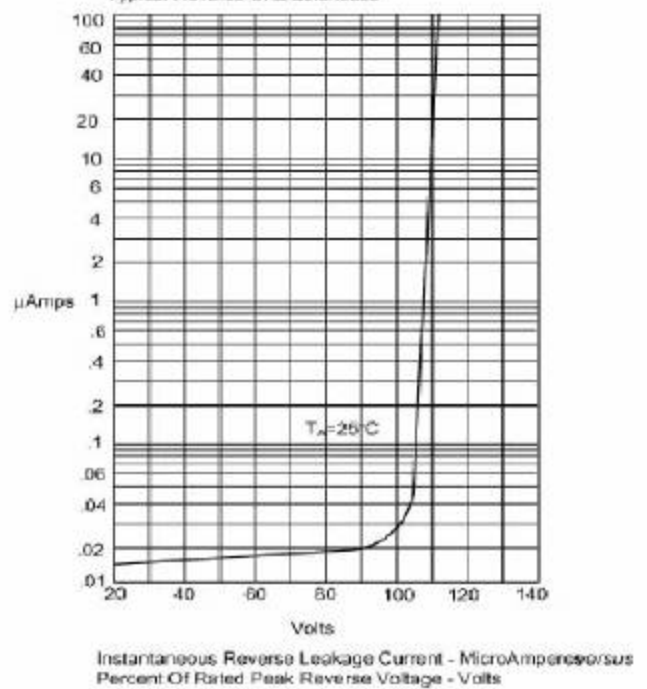


Figure 3
Forward Derating Curve

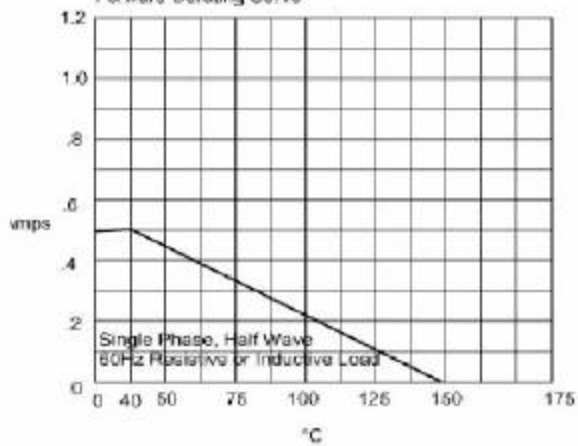
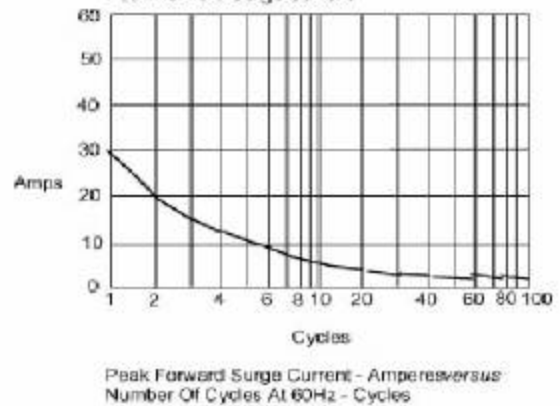


Figure 4
Peak Forward Surge Current



Average Forward Rectified Current - Amperes versus
Ambient Temperature - $^\circ\text{C}$