

## 1. Features

- Surface Mount Package
- Glass Passivated Diode Construction
- Moisture Resistant Epoxy Case
- High Surge Current Capability
- 0.8Amp Single Phase
- Glass Passivated
- Bridge Rectifier
- 50 to 1000 Volts

## 2. Absolute Maximum Ratings

Parameter	Ratings
Operating Temperature	-55°C to +150°C
Storage Temperature	-55°C to +150°C

MCC Catalog Number	Device Marking	Maximum Reverse Current 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



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

Parameter	Symbol	Conditions	Ratings
Average Forward Current	$I_{F(AV)}$	Note $T_A=25^\circ C$	0.8A
Peak Forward Surge Current	$I_{FSM}$	8.3ms, half sine	30A
Maximum Instantaneous Forward Voltage	$V_F$	$I_{FM}=0.5A, T_A=25^\circ C$	1.0V
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ C$	10 $\mu$ A
Typical Junction Capacitance	$C_J$	Measured at 1.0MHz, $V_R=4.0V$	25pF

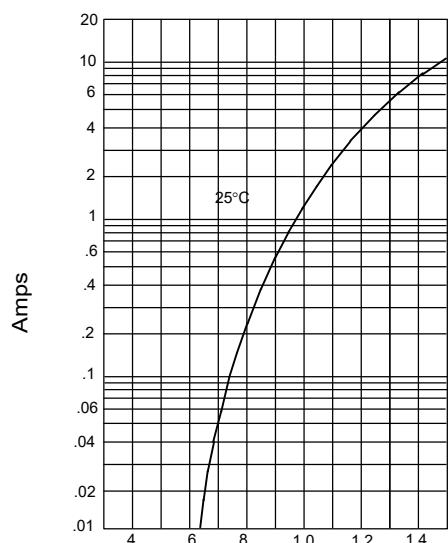
Note1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

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

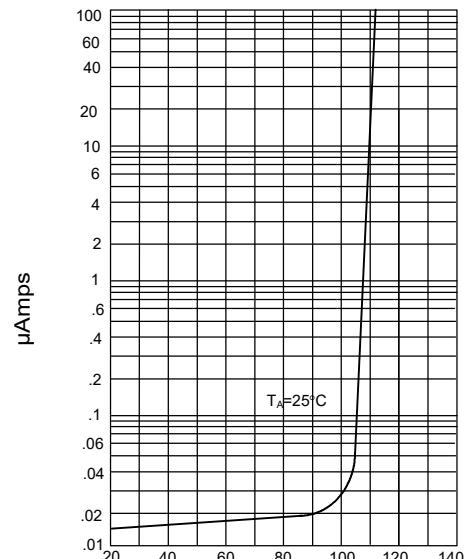
\*Pulse Test: Pulse Width 300m sec, Duty Cycle 1%



#### 4. Typical Characteristic



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



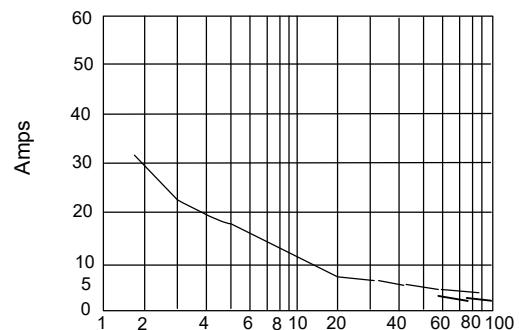
Instantaneous Reverse Leakage Current - MicroAmperes  
versus Percent Of Rated Peak Reverse Voltage - Volts  
Volts

Fig 1. Typical Forward Characteristics

Fig 2. Typical Reverse Characteristics



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



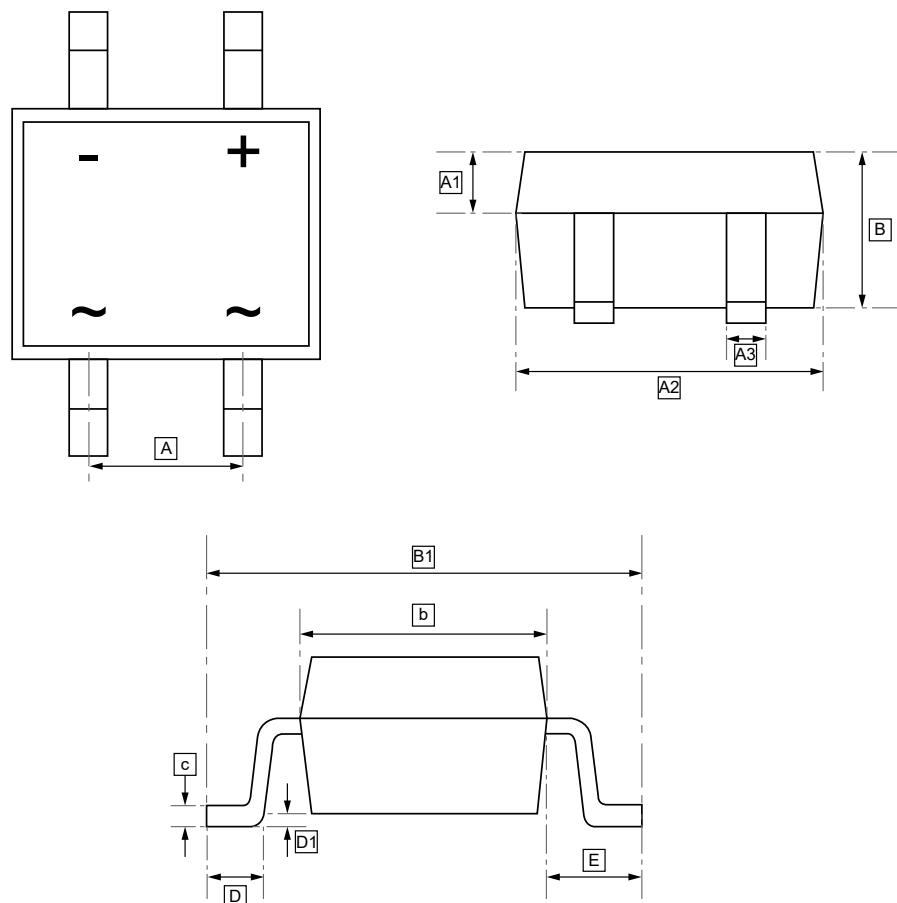
Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles  
Cycles

Fig 3. Forward Derating Curve

Fig 4. Peak Forward Surge Current



## 5.SOP-4 Package Outline Dimensions



### DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	A3	B	B1	b	c	D	D1	E
Min	2.3	0.5	4.5	0.5	1.3	7.0	3.5	0.15	0.7	0.2	1.3
Max	2.7	0.9	4.9	0.8	1.7		3.9	0.35	1.1		1.7



## 6.Ordering Information

Order Code	Marking	Package	Base QTY	Delivery Mode
UMW MB10S(0.8A)	MB10S	MBS-1	3000	Tape and reel
UMW MB6S(0.8A)	MB6S	MBS-1	3000	Tape and reel



## **7.Disclaimer**

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