MB1S thru MB10S

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 0.8 Amperes

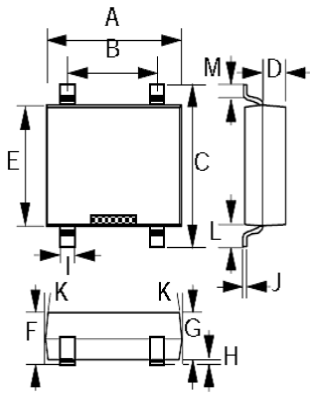
FEATURES

Rating to 1000V PRV
Ideal for printed circuit board
Reliable low cost construction utilizing molded plastic technique
The plastic material has UL flammability classification
94V-0
In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Polarity: As marked on Body
Weight: 0.0044 ounces, 0.125 grams
Mounting position: Any

MBS



MBS		
DIM.	MIN.	MAX.
A	4.50	4.90
B	2.30	2.70
C	–	7.00
D	0.90	1.30
E	3.80	4.20
F	–	3.00
G	2.30	2.70
H	–	0.20
I	0.50	0.80
J	0.15	0.35
K	5° TYPICAL	
L	1.30	1.70
M	0.70	1.10
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25□ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	MB 1S	MB 2S	MB 3S	MB 4S	MB 6S	MB 8S	MB 10S	UNIT
Maximum recurrent peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @TA=40℃	I_F	0.8							A
I^2t Rating for fuisng (t< 8.3mS)	I^2t	3.735							A^2sec
Peak forward surge current, single sine-wave superim posed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum instantaneous Forward Voltage Drop per element at 0.8A DC	V_F	1.1							V
Maximum DC Reverse Current @TA=25℃ at Rated DC Blocking Voltage @TA=100℃	I_R	5.0 500							uA
Typical junction capacitance per leg(note1)	C_J	15							pF
Typical Thermal Resistance Per leg (note2)	$R_{\theta JA}$ $R_{\theta JC}$	75 20							℃/W
Operating & StorageTemperature Range	TJ&TSTG	-55 to +150							℃

note1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
note2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.5x0.5" (13x13mm) copper pads.

Rating and Characteristic Curves

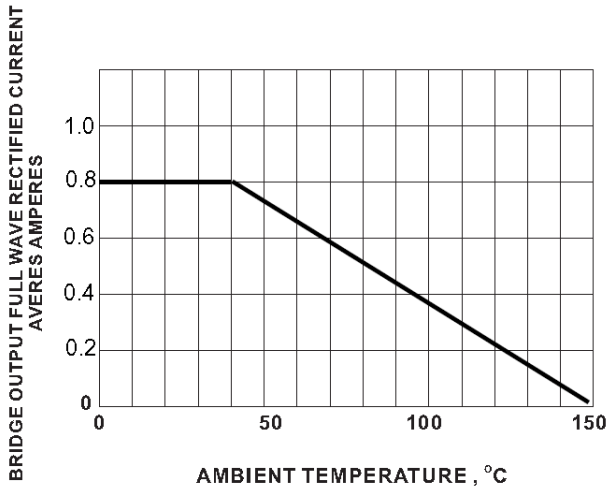


Fig.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

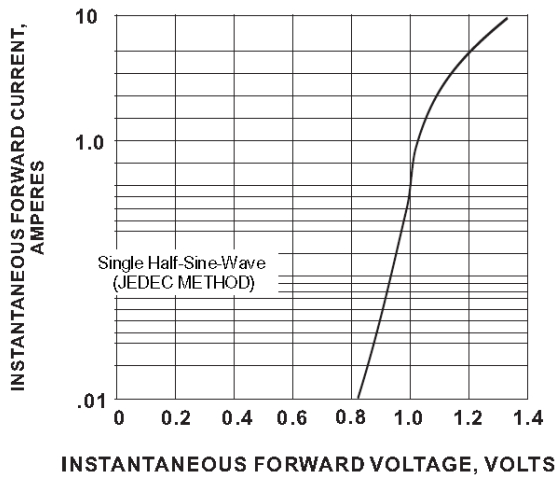


Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

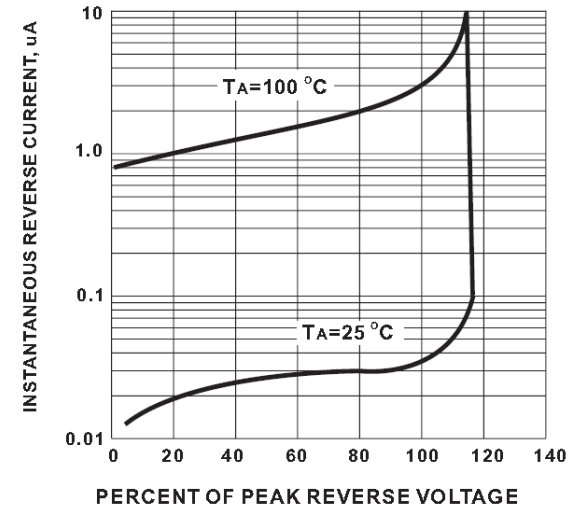


Fig.3 TYPICAL PEAK REVERSE CHARACTERISTICS

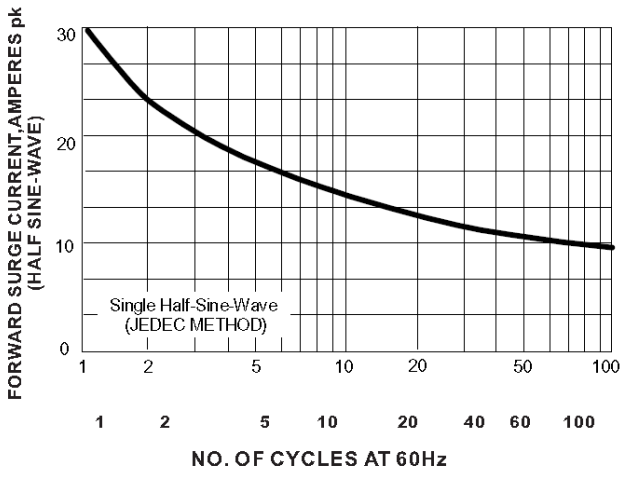


Fig.4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT