

# MB1S - MB10S

**PRV : 100 - 1000 Volts**

**Io : 0.5 Ampere**

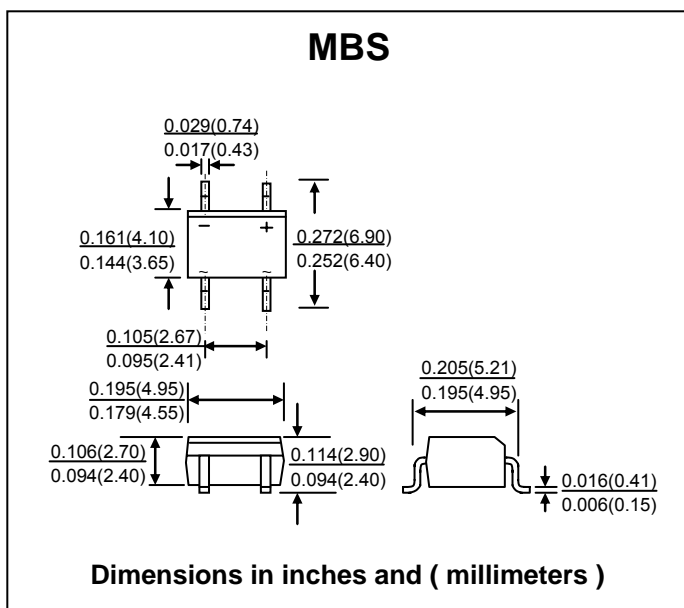
## FEATURES :

- \* Glass passivated chip junctions.
- \* High surge overload rating : 35A peak
- \* Saves space on printed circuit boards.
- \* High temperature soldering guaranteed : 260 °C/10 seconds.
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Plated Lead solderable per MIL-STD-750, Method 2026
- \* Polarity : Polarity symbols marked on body
- \* Mounting position : Any
- \* Weight : 0.22 gram

## MINI-BRIDGE RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specifier  
60 Hz, resistive or inductive load

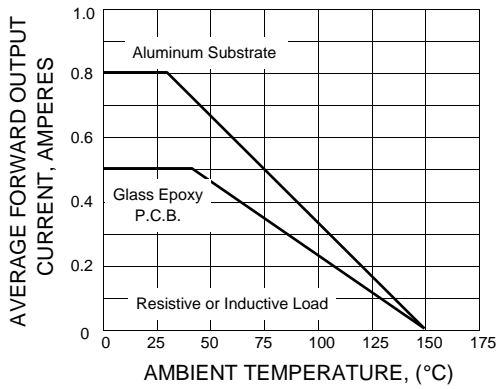
RATING	SYMBOL	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNIT
Maximum Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current (See Fig.1)	$I_{F(AV)}$	0.5 <sup>(1)</sup> (on glass-epoxy P.C.B.) 0.8 <sup>(2)</sup> (on aliminum substrate)						A
Maximum Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	35						A
Rating for fusing (t < 8.3 ms.)	$I^2t$	5.0						A <sup>2</sup> S
Maximum Instantaneous Forward Voltage per element at $I_F = 0.4$ A	$V_F$	1.0						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5.0						μA
	$I_{R(H)}$	100						μA
Typical Junction Capacitance per element	$C_j$	13 <sup>(3)</sup>						pF
Typical Thermal Resistance	$R_{\theta JA}$	85 <sup>(1)</sup>						°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150						°C

### Notes :

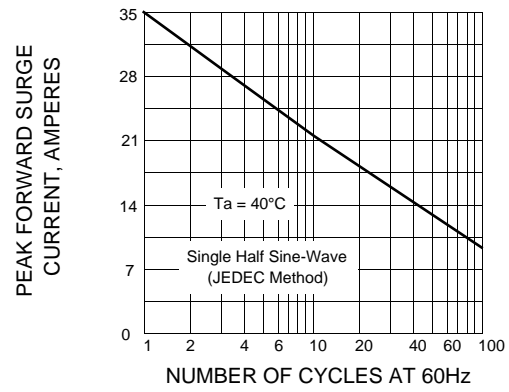
- (1) On glass epoxy P.C Board mounted on 0.5" x 0.5" (13mm x 13mm) Pads.
- (2) On aluminum substrate P.C.B. with an area 0.8" x 0.8" (20mm x 20mm) mounted on 0.5" x 0.5" (13mm x 13mm) Pads.
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC

**RATING AND CHARACTERISTIC CURVES ( MB1S - MB10S )**

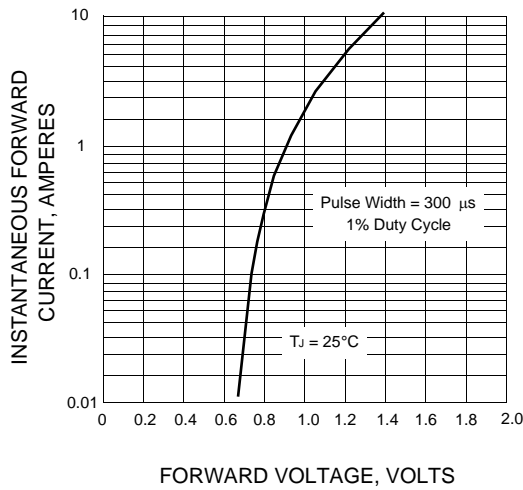
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



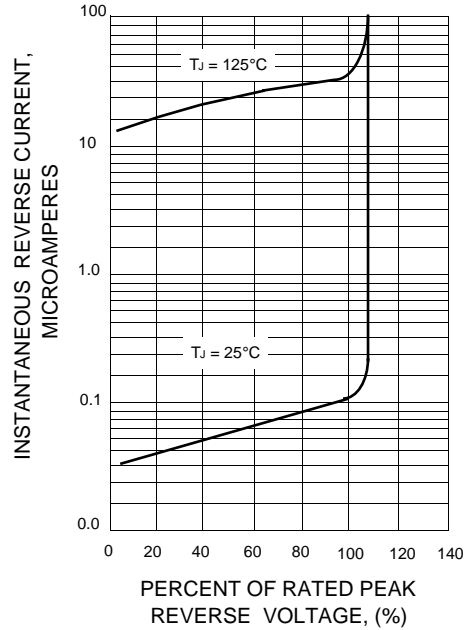
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT**



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