

MB1S - MB10S

PRV : 100 - 1000 Volts

Io : 0.5 Ampere

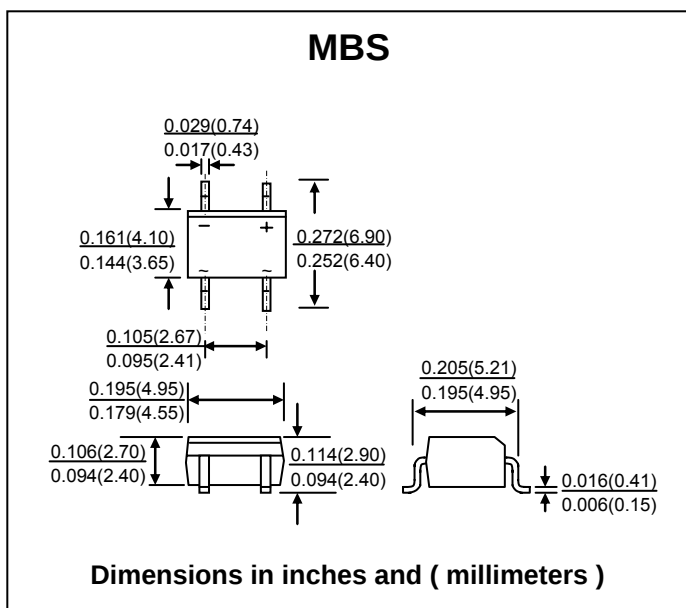
FEATURES :

- * 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 ⁽¹⁾ (on glass-epoxy P.C.B.) 0.8 ⁽²⁾ (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 ² 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 $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	5.0						μA
	$I_{R(H)}$	100						μA
Typical Junction Capacitance per element	C_j	13 ⁽³⁾						pF
Typical Thermal Resistance	$R_{\theta JA}$	85 ⁽¹⁾						°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

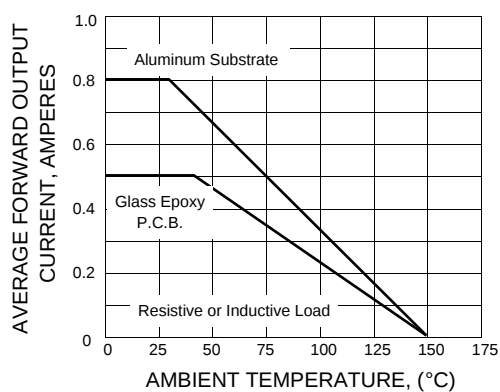


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

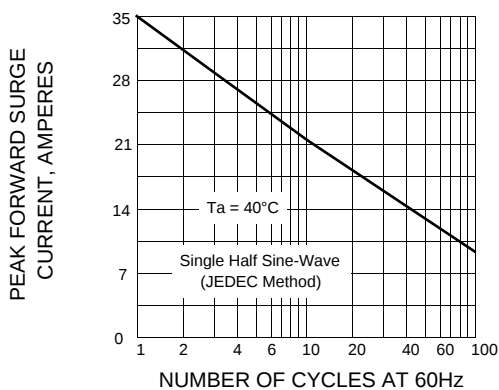


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

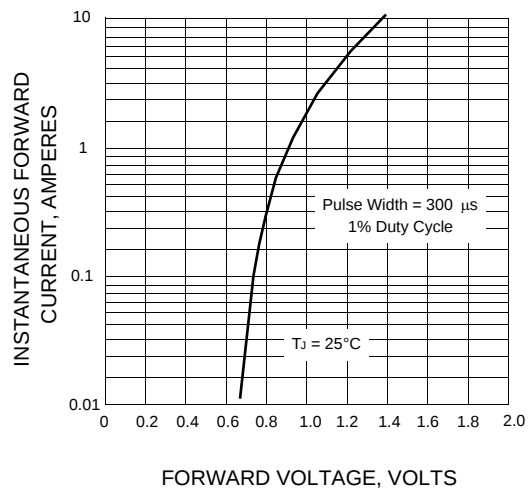


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

