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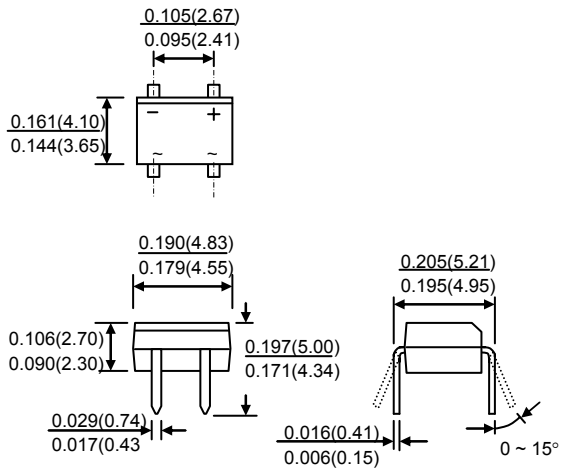
MB1M - MB10M

MINI-BRIDGE RECTIFIERS

PRV : 100 - 1000 Volts
Io : 0.5 Ampere

MBM



Dimensions in inches and (millimeters)

FEATURES :

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* 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 body over passivated junctions
* Terminals : Plated leads solderable per MIL-STD-750, Method 2026
* Weight : 0.22 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	MB1M	MB2M	MB4M	MB6M	MB8M	MB10M	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^2S
Maximum Instantaneous Forward Voltage per element at I_F = 0.4 A	V_F	1.0						V
Maximum DC Reverse Current Ta = 25°C	I_R	5.0						μA
at Rated DC Blocking Voltage Ta = 125°C	$I_{R(H)}$	100						μA
Typical Junction Capacitance per element	Cj	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 (MB1M - MB10M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

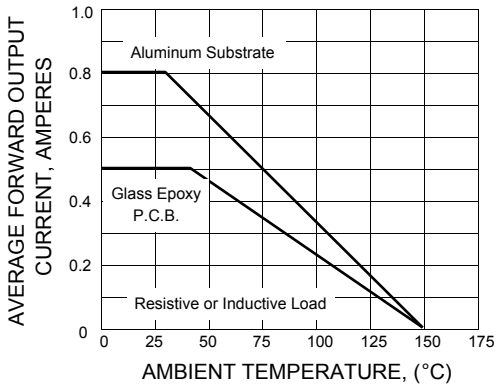


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

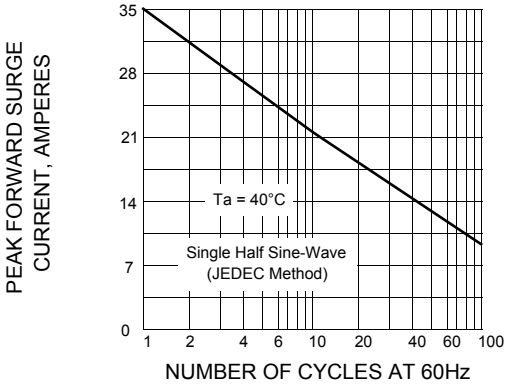


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

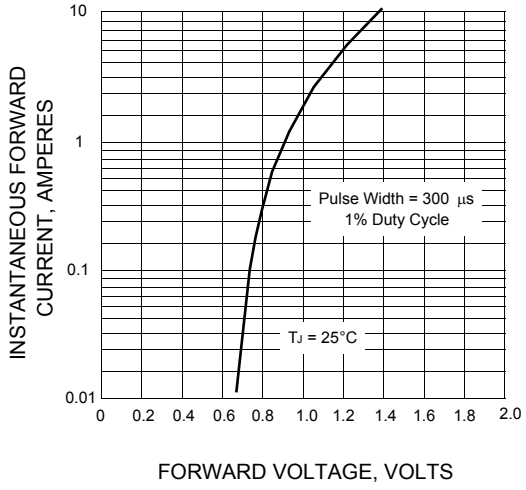


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

