

# MB1S~MB10S

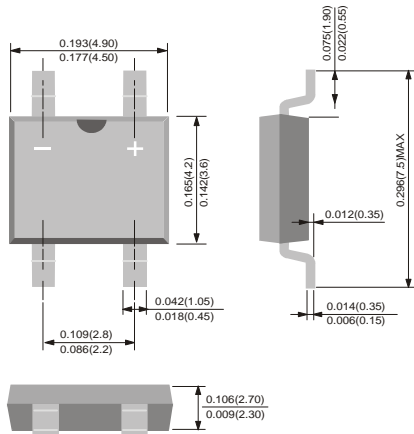
## MINI BRIDGE RECTIFIER

VOLTAGE 100 to 1000Volts CURRENT 0.8 Amperes



MBS

Unit : inch(mm)



### FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- Low leakage
- Surge overload rating-- 30 amperes peak
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- Case: Reliable low cost construction utilizing molded plastic technique results in
- inexpensive product
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols molded or marking on body
- Mounting Position: Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_R$	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_A=25^\circ C$	$I_{F(AV)}$	0.8						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25						A
Power Dissipation at $T_A=25^\circ C$	$P_D$	1.4						W
$I^2t$ Rating for fusing ( $t < 8.35ms$ )	$I^2t$	3.735						A <sup>2</sup> S
Maximum Forward Voltage Drop per Bridge Element at 0.5A	$V_F$	1.0						V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ C$ $T_J=125^\circ C$	$I_R$	10.0 500						$\mu A$
Typical Junction capacitance (Note 1)	$C_J$	25						pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	85 20						$^\circ C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150						$^\circ C$

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal resistance from junction to ambient mounted on 5cmX6cm P.C.B. with minimum copper pads.

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## RATING AND CHARACTERISTIC CURVES

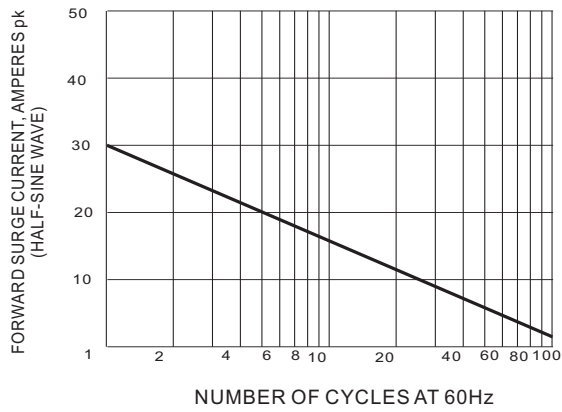


Fig.1 MAXIMUM NON-REPETITIVE SURGE CURRENT

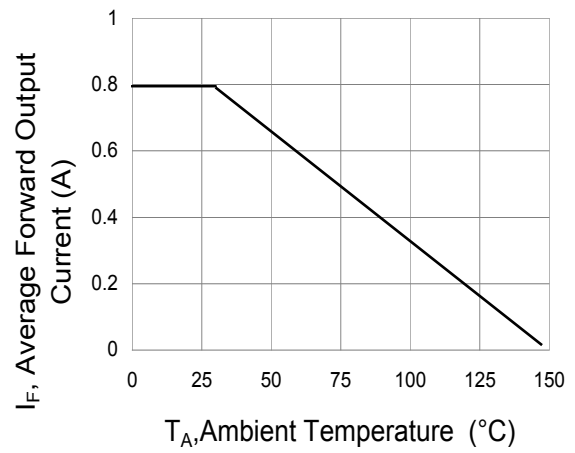


Fig.2 Derating Curve For Output Rectified Current

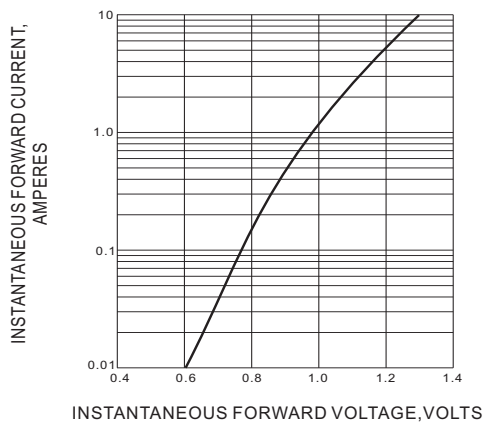


Fig.3 TYPICAL FORWARD CHARACTERISTICS

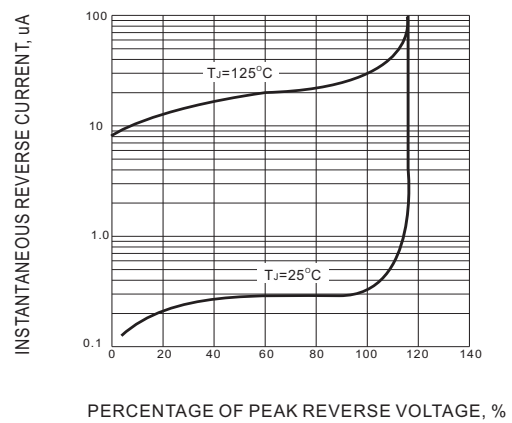


Fig.4 TYPICAL REVERSE CHARACTERISTICS