



MB01F THRU MB10F

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

1.0 Ampere

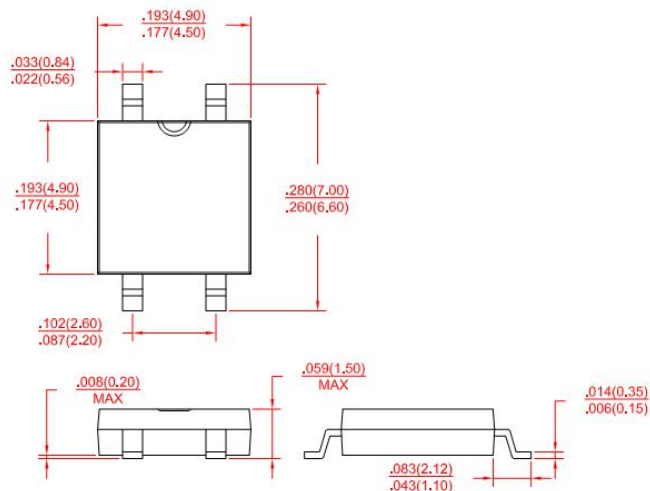
Features

- Glass passivated chip junction
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 seconds at terminals

Mechanical Data

- Case: Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- LeadP: Plated terminals solderable per MIL-STD-202E method 208C
- Weight: 0.003 ounce, 0.1 gram

MINI-DIP



Dimensions in inches and (millimeters)

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%

TYPE NUMBER	SYMBOLS	MB 01F	MB 02F	MB 03F	MB 04F	MB 06F	MB 08F	MB 10F	UNIT
Maximum Reverse Peak Repetitive Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, 0.06"(1.5mm) lead length at $T_A=40^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Peak Forward Surge Current 1.0ms single half sine wave superimposed on rated load (JEDEC Method)		60							
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	3.7							A^2s
Maximum Instantaneous Forward Voltage drop Per Bridge element 1.0A	V_F	1.1							Volts
Maximum Reverse Current at rated DC blocking voltage per element	I_R	$T_A=25^\circ\text{C}$							μAmps
		$T_A=125^\circ\text{C}$							
Typical Junction Capacitance (NOTE 1)	C_J	13							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	80							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	(-55 to +150)							$^\circ\text{C}$

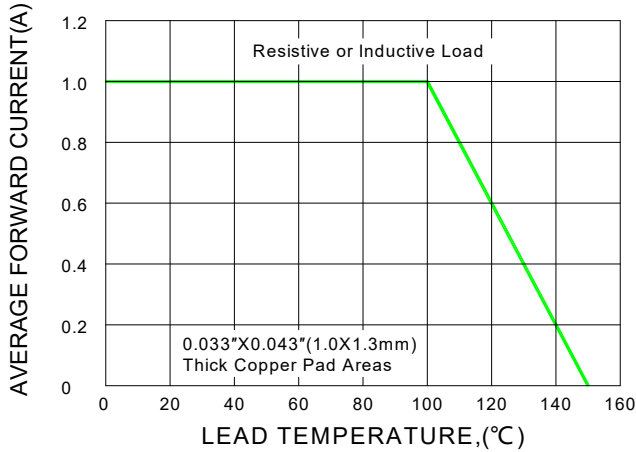
Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on P.C.B. with 0.033"x0.043"(1.00mmx1.30mm) copper pads.

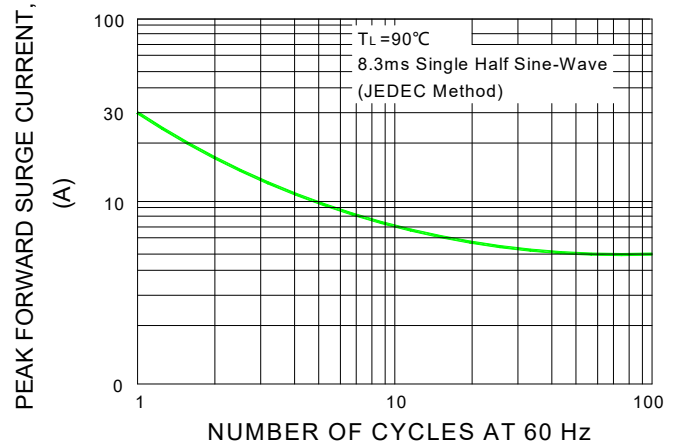


Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

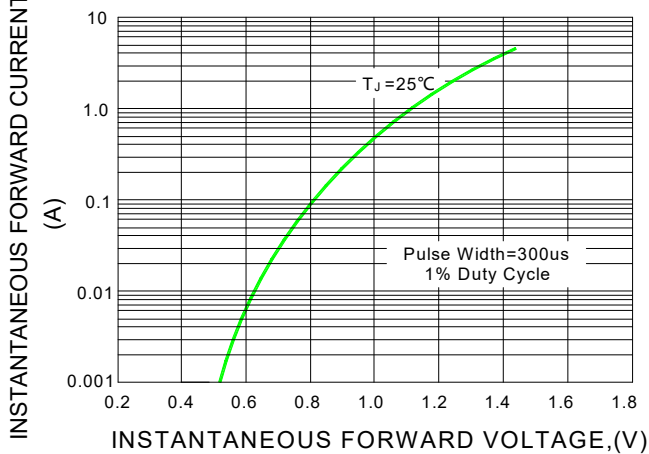
F1G.1-FORWARD CURRENT DERATING CURVE



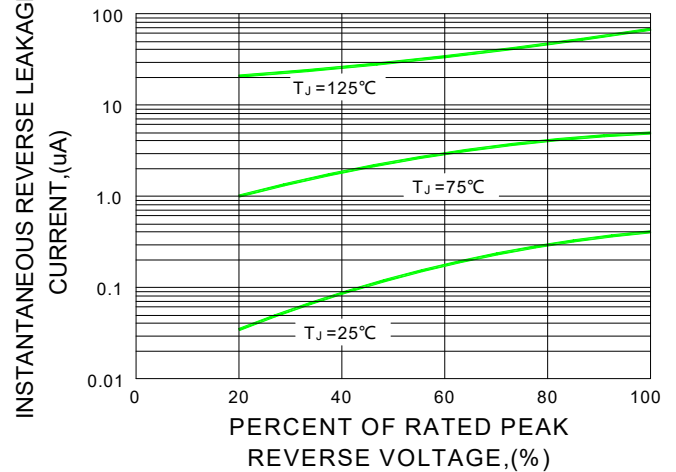
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE

