

# **MB01F THRU MB10F**

#### SURFACE MOUNT FAST SWITCHING RECTIFIER

#### **Features**

- Glass passivated chip:46mil
- 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

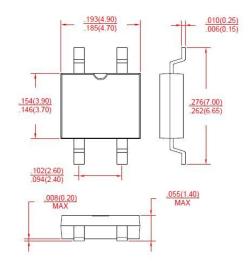
• Polarity: Molded on body

LeadP: Plated terminals solderable per MIL-STD-202E

method 208C

• Weight: 0.003 ounce, 0.1 gram

## **MBF**



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 <sub>RMS</sub>	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 <sub>A</sub> =40°C		I <sub>(AV)</sub>	0.8							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)			25							Amps
Peak Forward Surge Current 1.0ms single half sine wave superimposed on rated load (JEDEC Method)		IFSM	60							
Rating for Fusing (t<8.3ms)		l <sup>2</sup> t	3.7							A <sup>2</sup> s
Maximum Instantaneous Forward Voltage drop Per Bridge element 0.8A		V <sub>F</sub>	1.1							Volts
Maximum Reverse Current at rated DC blocking voltage per element	Ta=25°C		5							μAmps
	Ta=125°C	I <sub>R</sub>	120							
Typical Junction Capacitance (NOTE 1)		Сл	13							pF
Typical Thermal Resistance (NOTE 2)		R <sub>⊝JA</sub>	80							°C/W
Operating and Storage Temperature Range		TJ ,Tstg	(-55 to +150)							°C

#### Notes:

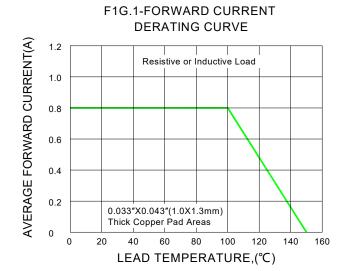
- 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
- 2. Unit mounted on P.C.B. with 0.033"×0.043"(1.00mm×1.30mm) copper pads.

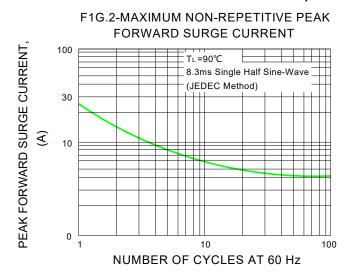


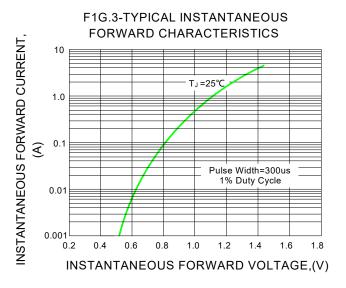
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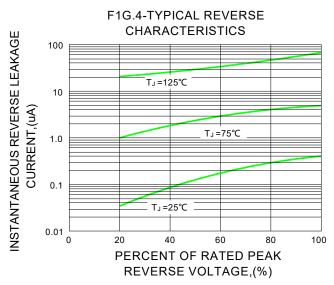
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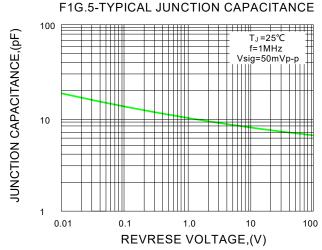
## Ratings and Characteristic Curves (TA=25°C unless otherwise noted)











SYMBOLS	MB01F	MB02F	MB03F	MB04F	MB06F	MB08F	MB10F
MARKING	MB01F	MB02F	MB03F	MB04F	MB06F	MB08F	MB10F

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