

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 100 to 1000 Volts CURRENT 0.8 Ampere

**FEATURES**

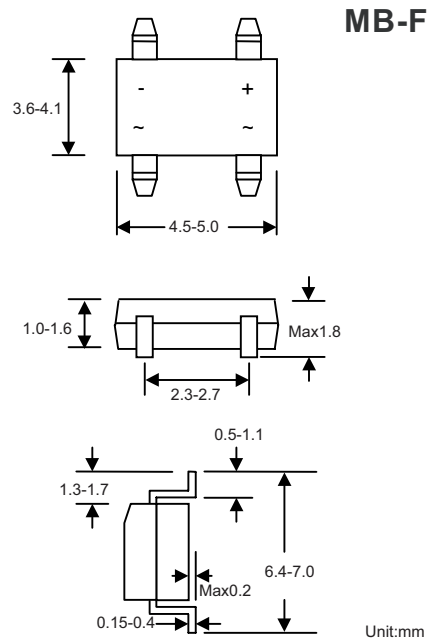
- \* Surge overload rating - 30 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* P/N suffix V means AEC-Q101 qualified, e.g:MB1FV
- \* P/N suffix V means Halogen-free

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-O

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



MAXIMUM RATINGS (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

RATINGS		SYMBOL	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	UNITS
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V <sub>RMS</sub>	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current	T <sub>A</sub> = 125 °C	I <sub>O</sub>	0.5						Amps
	T <sub>A</sub> = 110 °C		0.8						
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	30						Amps
Peak Forward Surge Current 10 ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	27.3						Amps
Typical Current Squarad Time		I <sup>2</sup> <sub>t</sub>	3.74						A <sup>2</sup> S
Typical ThermalResistance(Note2)		R <sub>θJA</sub>	64						°C/W
		R <sub>θJL</sub>	39						
Operating and Storage Temperature Range		T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150						°C

ELECTRICAL CHARACTERISTICS (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS		SYMBOL	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	UNITS
Maximum Forward Voltage Drop per Bridge Element at 0.8 A DC		$V_F$	1.1						Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@ $T_A = 25^\circ\text{C}$	$I_R$	1.0						$\mu\text{Amps}$
	@ $T_A = 150^\circ\text{C}$		2						mAmps

NOTES:1. Typical Thermal Resistance : At 9.5mm lead lengths, PCB mounted.

2019-03/18  
REV:F

## RATING AND CHARACTERISTICS CURVES ( MB1F THRU MB10F )

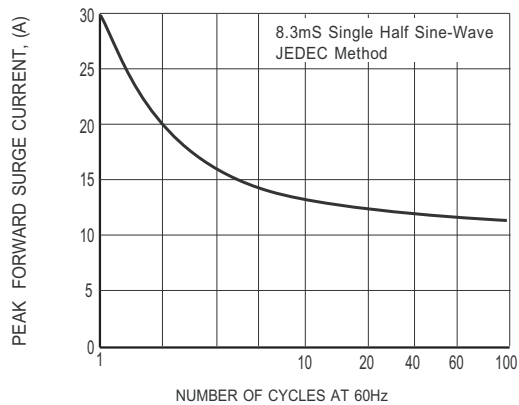


FIG. 1 MAXIMUM NON-REPETITIVE  
FORWARD SURGE CURRENT

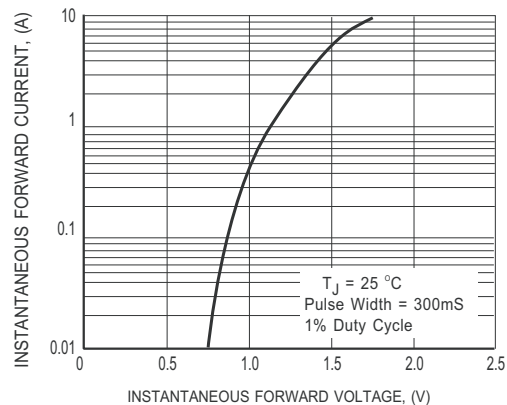


FIG. 2 MAXIMUM INSTANTANEOUS  
FORWARD CHARACTERISTICS

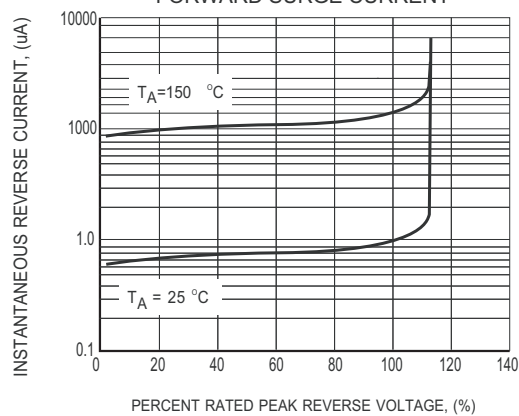


FIG. 3 MAXIMUM REVERSE CHARACTERISTICS

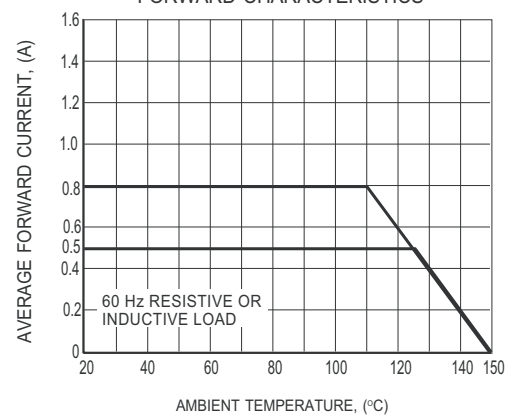


FIG. 4 TYPICAL FORWARD CURRENT  
DERATING CURVE

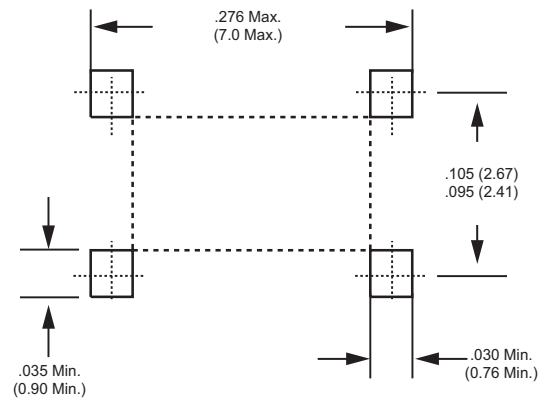
### Marking Description

Part No.  $\longrightarrow$  **M B X F**

$\uparrow$  Voltage-code

1-----	100V	6-----	600V
2-----	200V	8-----	800V
4-----	400V	10-----	1000V

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
MB-F	-W	5,000	10,000			330	360*335*360	80,000	25.83

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