

# Silicon Bridge Rectifiers

## MBF10N

### Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High temperature soldering guaranteed:  
260°C/10 seconds



- RoHS Compliant

### Mechanical Data

- Case: Molded plastic body RoHS-compliant
- Molding compound meets UL 94 V-0 flammability rating
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Polarity indicator: As marked on body

### Maximum Ratings (@T<sub>A</sub> = 25°C unless otherwise specified)

Characteristic	Symbol	MBF10N	Units
Peak repetitive reverse voltage	V <sub>RRM</sub>	1200	V
RMS reverse voltage	V <sub>RMS</sub>	840	V
DC blocking voltage	V <sub>DC</sub>	1200	V
Maximum average forward output current	I <sub>F(AV)</sub>	1.0	A
Peak forward surge current, 8.3ms single half-sine-wave	@T <sub>J</sub> = 25°C I <sub>FSM</sub>	30	A
I <sup>2</sup> t Rating for fusing	@T <sub>J</sub> = 25°C I <sup>2</sup> t	3.7	A <sup>2</sup> s

### Thermal Characteristics

Parameter	Symbol	MBF10N	Units
Typical thermal resistance per leg (Note 1)	R <sub>θJA</sub>	67	°C/W
	R <sub>θJC</sub>	24	
	R <sub>θJL</sub>	13	
Operating junction temperature range	T <sub>J</sub>	- 55 ---- + 150	°C
Storage temperature range	T <sub>STG</sub>	- 55 ---- + 150	°C

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

**Silicon Bridge Rectifiers****MBF10N****Electrical Characteristics** (@T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Typ.	Max.	Units	
Maximum instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1.0A Per Diode	--	1.15	V	
Maximum Reverse current	I <sub>R</sub>	Rated V <sub>R</sub> , Per Diode	@T <sub>A</sub> =25°C	--	5	μ A
			@T <sub>A</sub> =125°C	--	200	

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## Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1-Forward Current Derating Curve

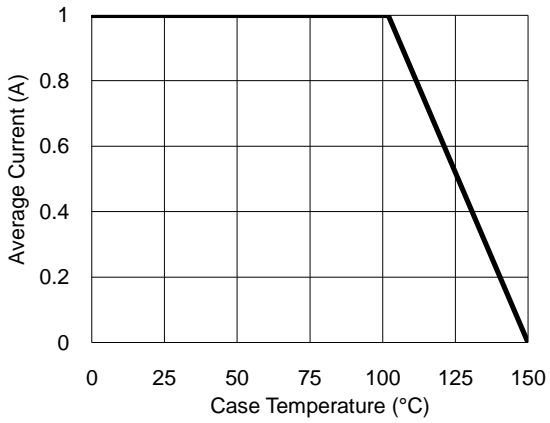


Fig.2- Surge Current Derating Curve

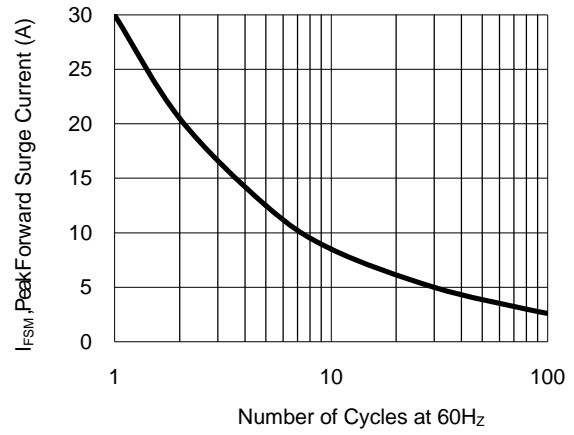


Fig.3- Typical Forward Voltage Characteristic

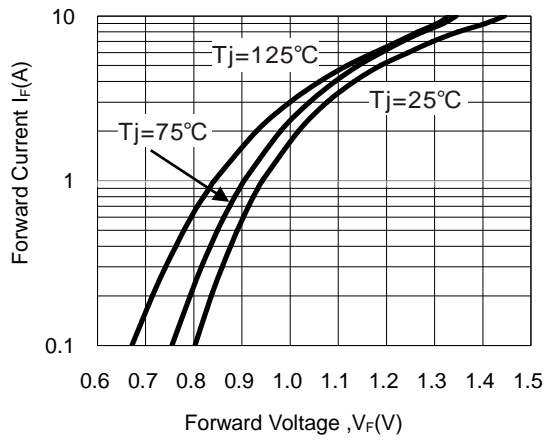
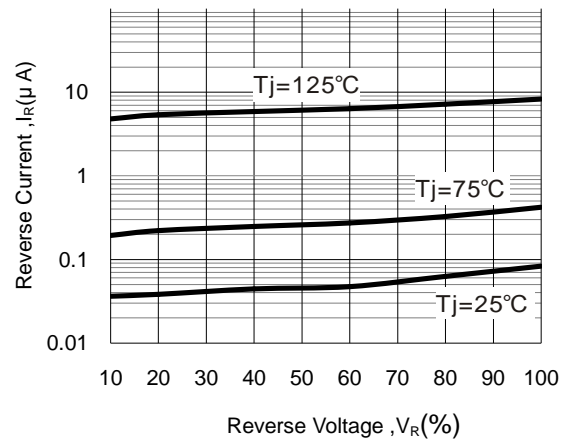


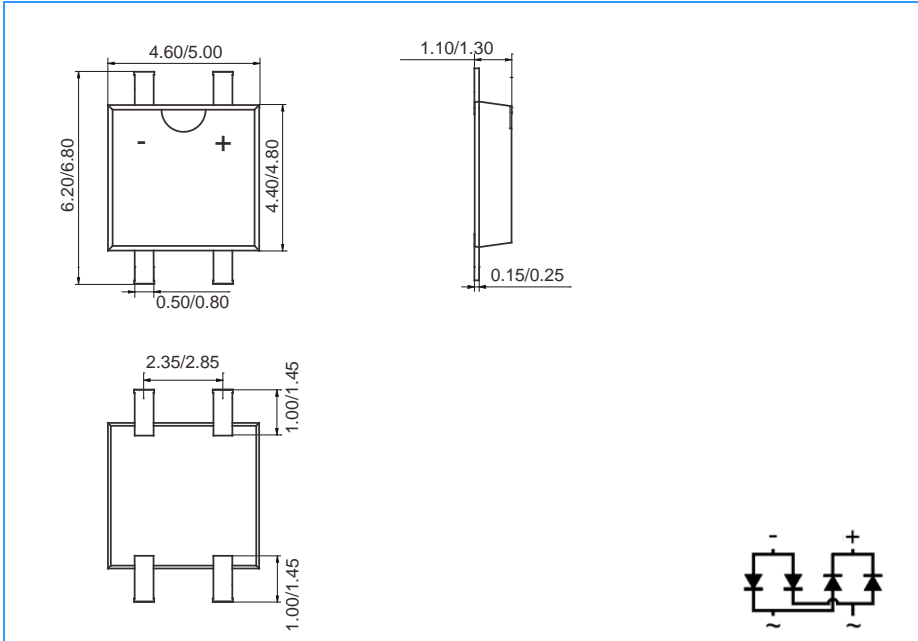
Fig.4- Typical Reverse Characteristic



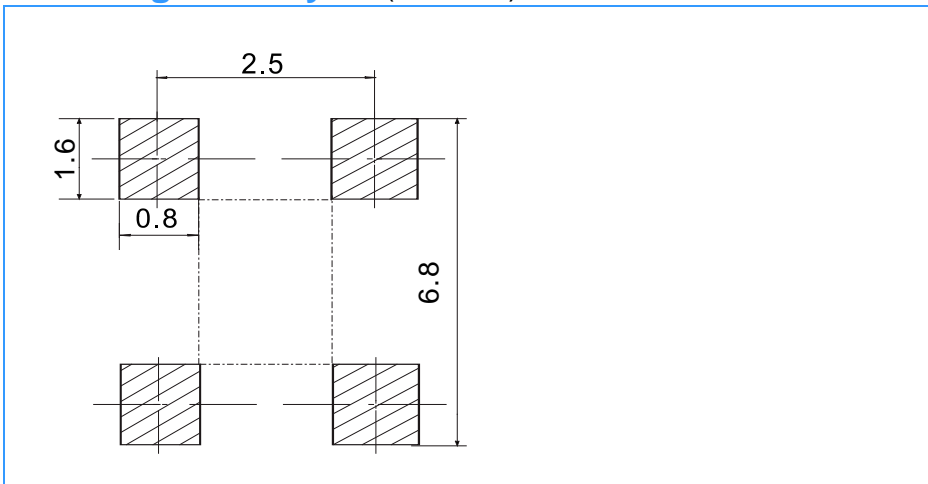
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## Package Outline Dimensions(unit:mm)



## Mounting Pad Layout(unit:mm)



## Ordering Information

Part No.	Marking	Package	Shipping
MBF10N	MBF10N	MBF	5000/Tape&Reel