

# Silicon Bridge Rectifiers

**MBF15M**

## 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	MBF15M	Units
Peak repetitive reverse voltage	V <sub>RRM</sub>	1000	V
RMS reverse voltage	V <sub>RMS</sub>	700	V
DC blocking voltage	V <sub>DC</sub>	1000	V
Maximum average forward output current	I <sub>F(AV)</sub>	1.5	A
Peak forward surge current, 8.3ms single half-sine-wave	@T <sub>J</sub> = 25°C I <sub>FSM</sub>	40	A
I <sup>2</sup> t Rating for fusing	@T <sub>J</sub> = 25°C I <sup>2</sup> t	6.6	A <sup>2</sup> s

## Thermal Characteristics

Parameter	Symbol	MBF15M	Units
Typical thermal resistance per leg (Note 1)	R <sub>θJA</sub>	72	°C/W
	R <sub>θJC</sub>	31	
	R <sub>θJL</sub>	15	
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

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### Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage	$V_F$	$I_F=1.5\text{A}$ Per Diode		--	1.15	V
Maximum Reverse current	$I_R$	Rated $V_R$ , Per Diode	@ $T_A=25^\circ\text{C}$	--	10	$\mu\text{A}$
			@ $T_A=125^\circ\text{C}$	--	200	

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

Fig.1-Forward Current Derating Curve

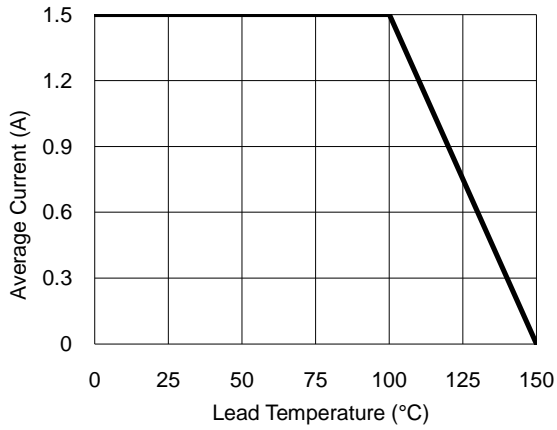


Fig.2- Surge Current Derating Curve

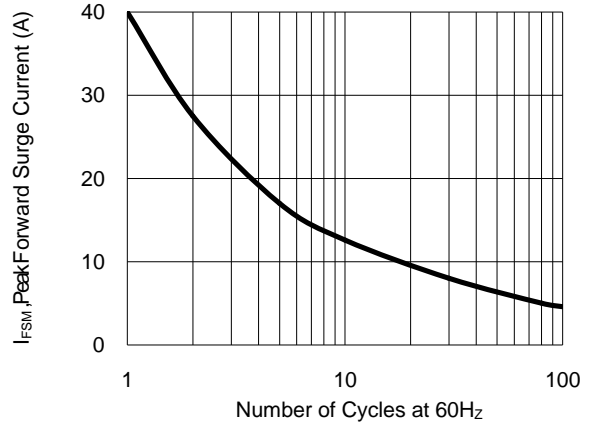


Fig.3- Typical Forward Voltage Characteristic

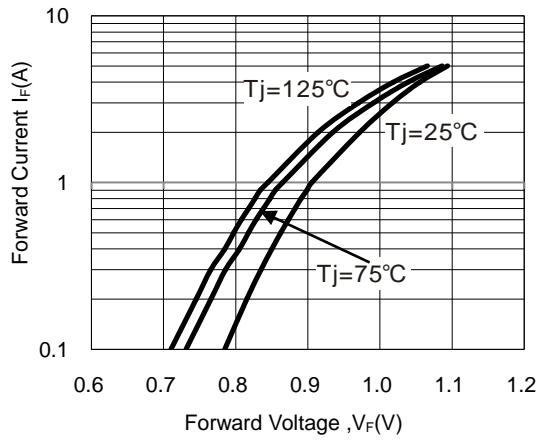
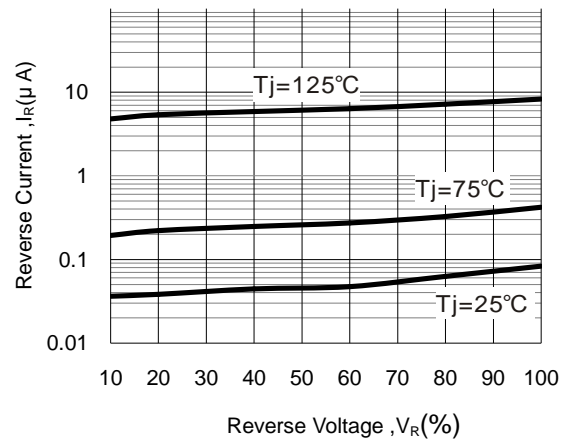


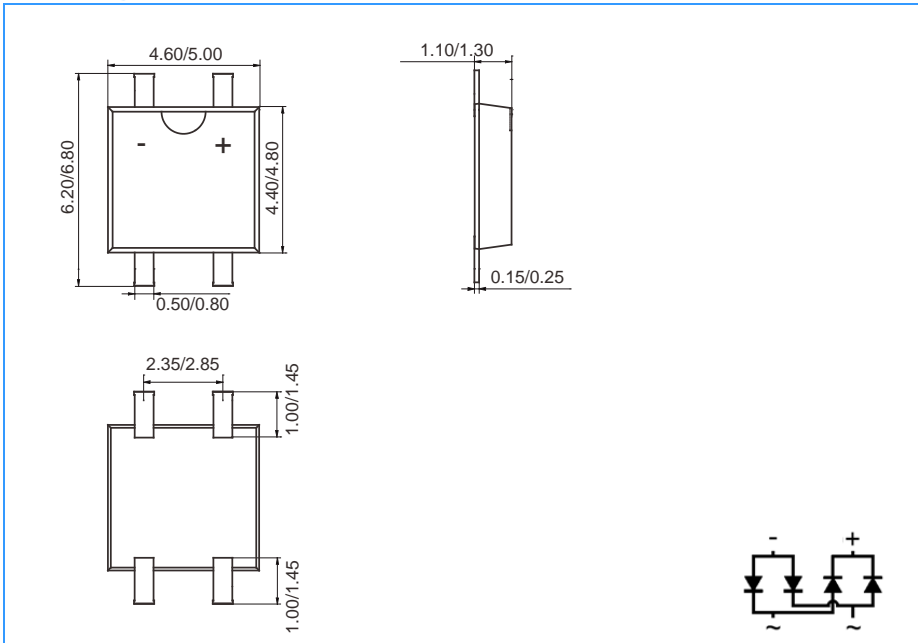
Fig.4- Typical Reverse Characteristic



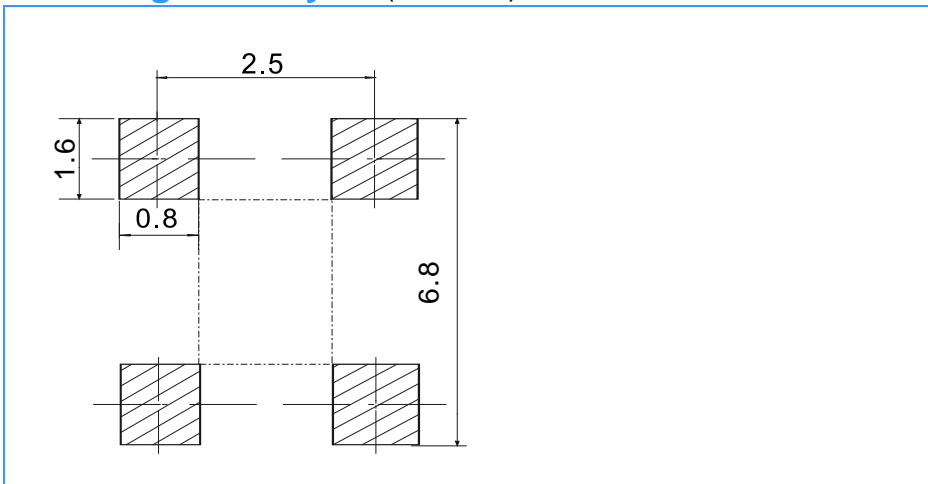
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### Package Outline Dimensions(unit:mm)



### Mounting Pad Layout(unit:mm)



### Ordering Information

Part No.	Marking	Package	Shipping
MBF15M	MBF15M	MBF	5000/Tape&Reel