

Silicon Bridge Rectifiers

FMBF10K--FMBF10M

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: MBF molded plastic
- 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_A = 25°C unless otherwise specified)

Characteristic		Symbol	FMBF10K	FMBF10M	Units
Peak repetitive reverse voltage		V _{RRM}	800	1000	V
RMS reverse voltage		V _{RMS}	560	700	V
DC blocking voltage		V _{DC}	800	1000	V
Maximum average forward output current		I _{F(AV)}	1.0		A
Peak forward surge current, 8.3ms single half-sine-wave	@T _J = 25°C	I _{FSM}	30		A
I ² t Rating for fusing	@T _J = 25°C	I ² t	3.7		A ² s

Thermal Characteristics

Parameter	Symbol	FMBF10K	FMBF10M	Units
Typical thermal resistance per leg (Note 1)	R _{θJA}	72		°C/W
	R _{θJC}	31		
	R _{θJL}	16		
Operating junction temperature range	T _J	- 55 ---- + 150		°C
Storage temperature range	T _{STG}	- 55 ---- + 150		°C

Note:

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

Silicon Bridge Rectifiers

FMBF10K--FMBF10M

Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Typ.	Max.	Units
Maximum instantaneous forward voltage	V _F	I _F =1.0A Per Diode	--	1.3	V
Maximum Reverse current	I _R	Rated V _R , Per Diode	@T _A =25°C	5	μA
			@T _A =125°C	100	
Maximum Reverse Recovery Time	trr	I _F =0.5A, I _{RM} =1A, I _{R(REC)} =0.25A	--	200	ns

Silicon Bridge Rectifiers

FMBF10K--FMBF10M

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

Fig.1-Forward Current Derating Curve

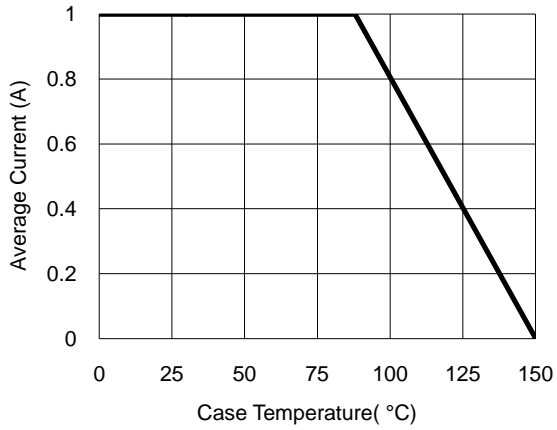


Fig.2- Surge Current Derating Curve

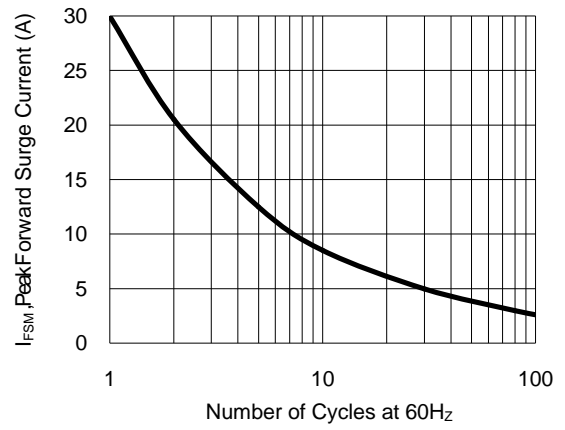


Fig.3- Typical Forward Voltage Characteristic

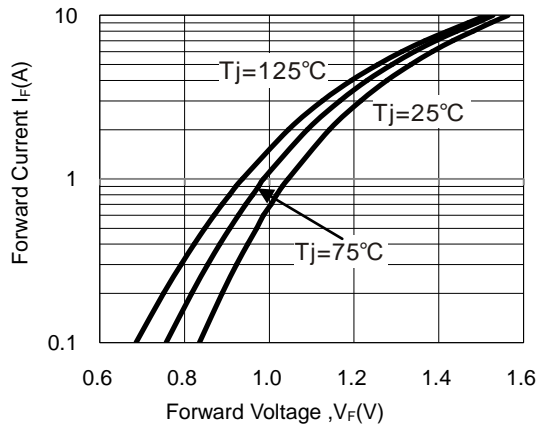
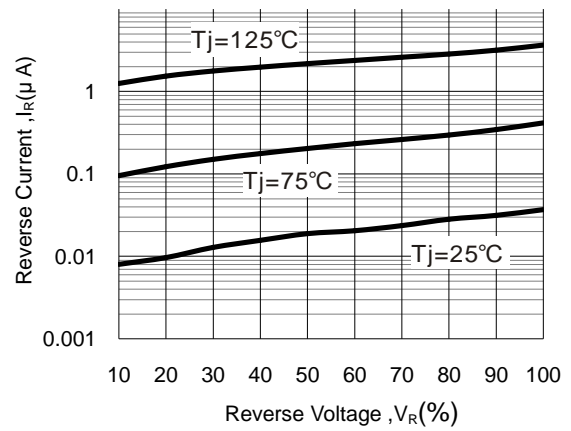


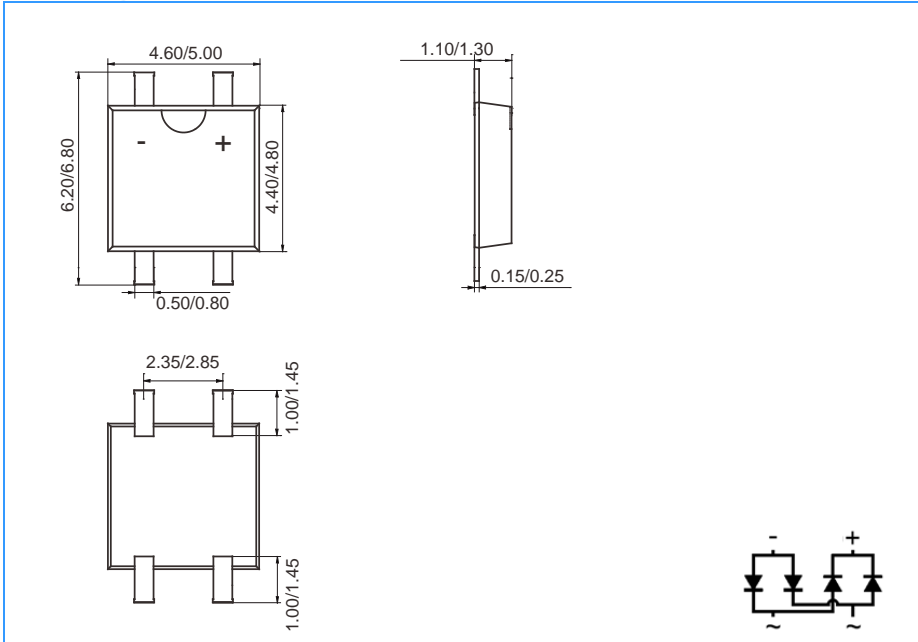
Fig.4- Typical Reverse Characteristic



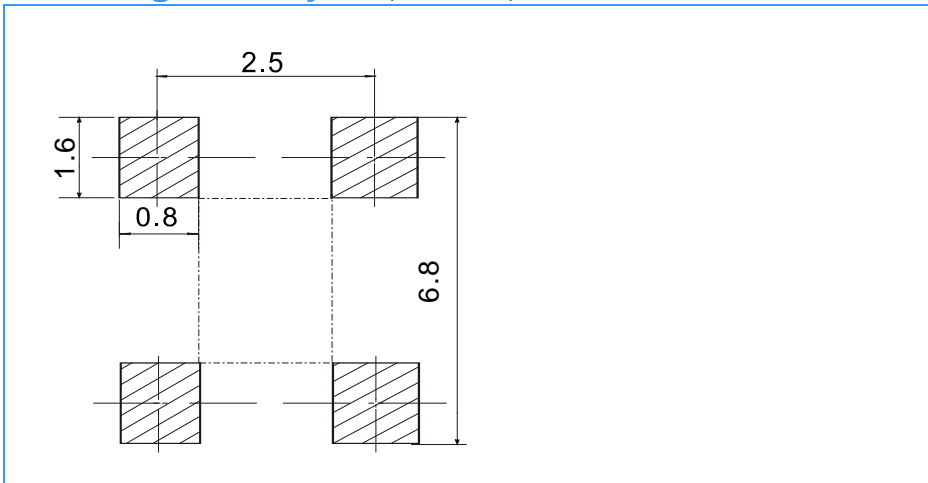
Silicon Bridge Rectifiers

FMBF10K--FMBF10M

Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



Ordering Information

Part No.	Marking	Package	Shipping
FMBF10K	FMBF10K	MBF	5000/Tape&Reel
FMBF10M	FMBF10M	MBF	5000/Tape&Reel