

Silicon Bridge Rectifiers

FTBF20K--FTBF20M

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: TBF 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	FTBF20K	FTBF20M	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)}	2.0		A
Peak forward surge current, 8.3ms single half-sine-wave	@T _J = 25°C	I _{FSM}	50		A
I ² t Rating for fusing	@T _J = 25°C	I ² t	10.4		A ² s

Thermal Characteristics

Parameter	Symbol	FTBF20K	FTBF20M	Units
Typical thermal resistance per leg (Note 1)	R _{θJA}	45		°C/W
	R _{θJC}	17		
	R _{θJL}	10		
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**FTBF20K--FTBF20M****Electrical Characteristics** (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage	V_F	$I_F=2.0\text{A}$ Per Diode		--	1.3	V
Maximum Reverse current	I_R	Rated V_R , Per Diode	@ $T_A=25^\circ\text{C}$	--	5	μA
			@ $T_A=125^\circ\text{C}$	--	200	
Maximum Reverse Recovery Time	t_{rr}	$I_F=0.5\text{A}, I_{RM}=1\text{A}, I_{R(REC)}=0.25\text{A}$		--	250	ns

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

Fig.1-Forward Current Derating Curve

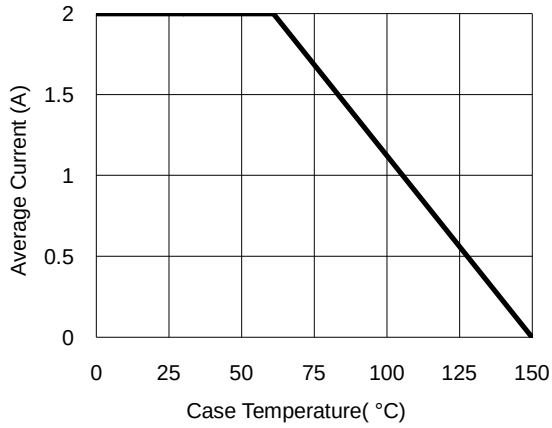


Fig.2- Surge Current Derating Curve

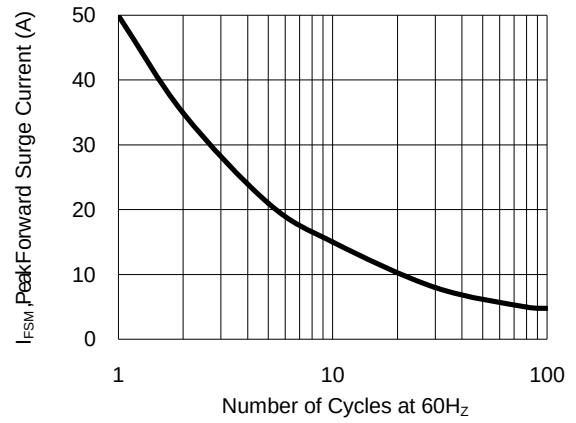


Fig.3- Typical Forward Voltage Characteristic

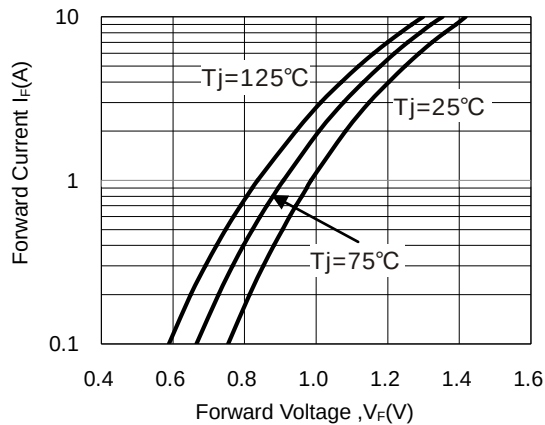
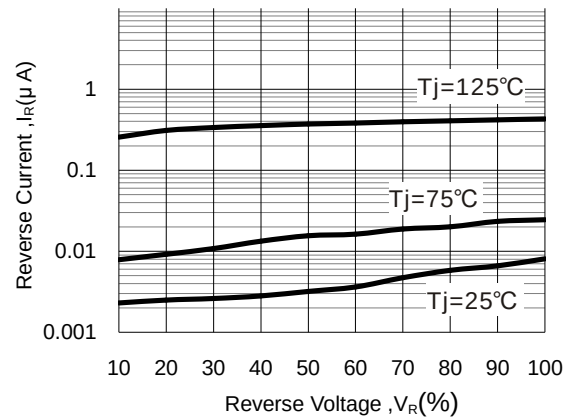


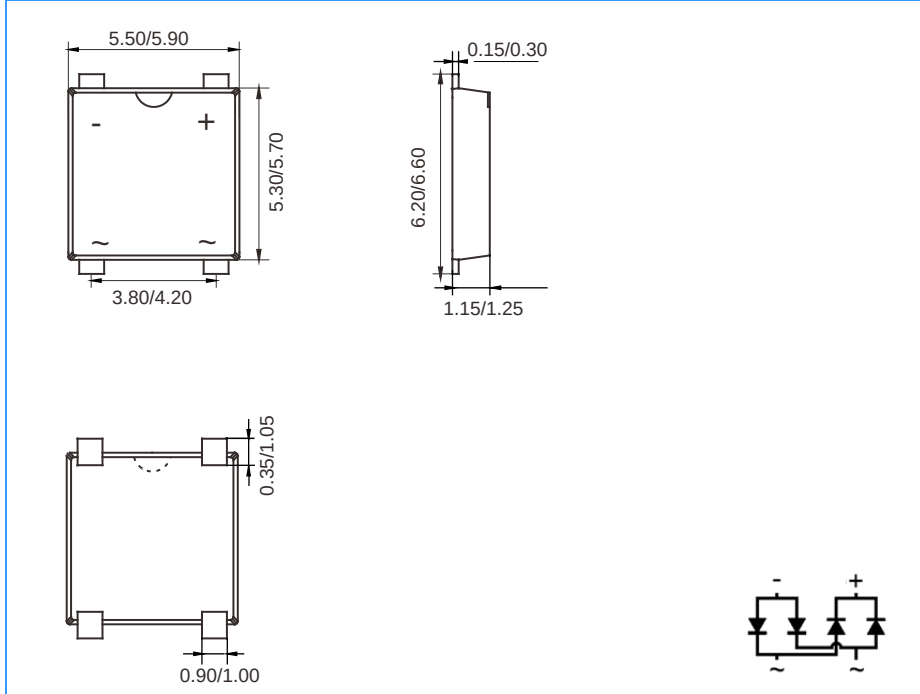
Fig.4- Typical Reverse Characteristic



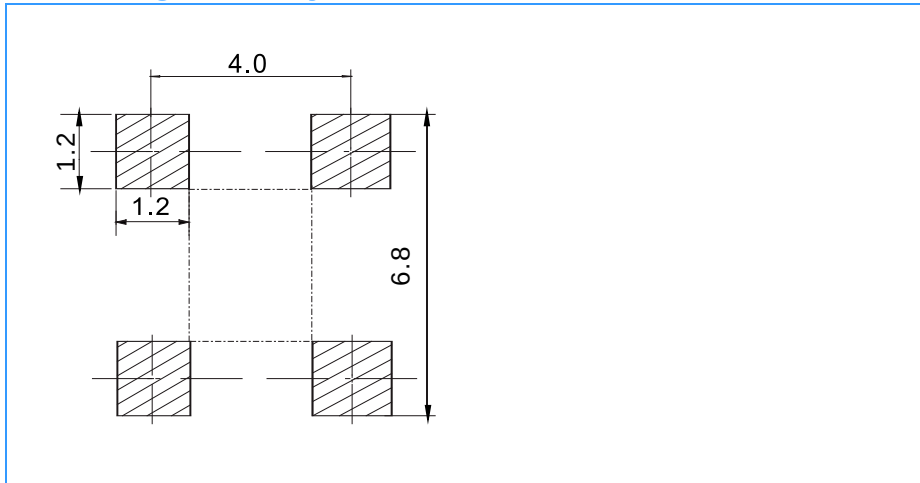
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Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



Ordering Information

Part No.	Marking	Package	Shipping
FTBF20K	FTBF20K	TBF	5000/Tape&Reel
FTBF20M	FTBF20M	TBF	5000/Tape&Reel