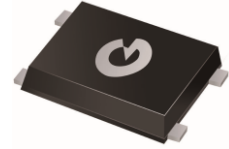


Silicon Bridge Rectifiers

TBF20M

Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High-temp soldering guaranteed: 260°C @ 10s.
- RoHS compliant with Halogen-free



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)

Parameter	Symbol	TBF20M	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	1000	V
RMS Reverse Voltage	V _{RMS}	700	V
DC Blocking Voltage	V _{DC}	1000	V
Maximum Average Forward Output Current	I _{F_AV}	2.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	50	A
I ² t Rating for fusing	I ² t	10.4	A ² s

Thermal Characteristics

Parameter	Symbol	TBF20M	Unit
Typical Thermal Resistance per leg *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 p.c.b. with 10 mm x 20 mm x 0.1mm copper pad area

Silicon Bridge Rectifiers

TBF20M

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

Parameter	Symbol	Test Condition		Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F = 2.0\text{A}$ Per Diode		-	1.1	V
Maximum Reverse Current	I_R	Rated V_R , Per Diode	@ $T_A = 25^\circ\text{C}$	-	5.0	μA
			@ $T_A = 125^\circ\text{C}$	-	200.0	

Silicon Bridge Rectifiers

TBF20M

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

Fig.1 Forward Current Derating Curve

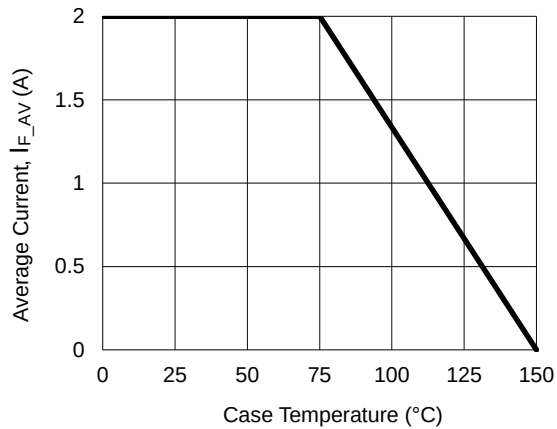


Fig.2 Surge Current Derating Curve

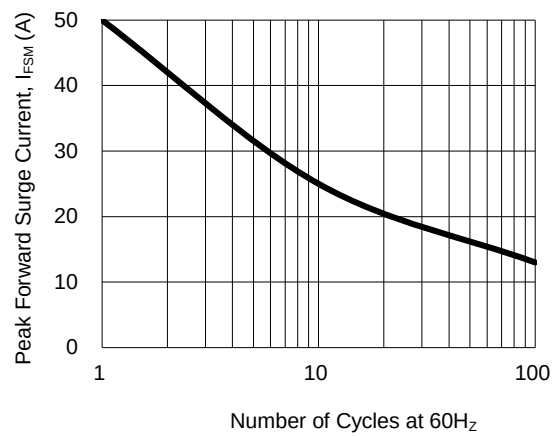


Fig.3 Typical Forward Voltage Characteristics

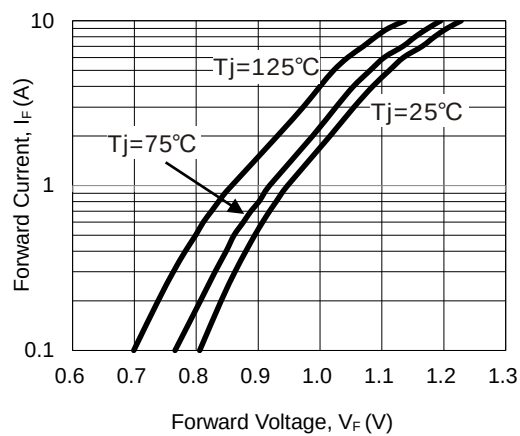
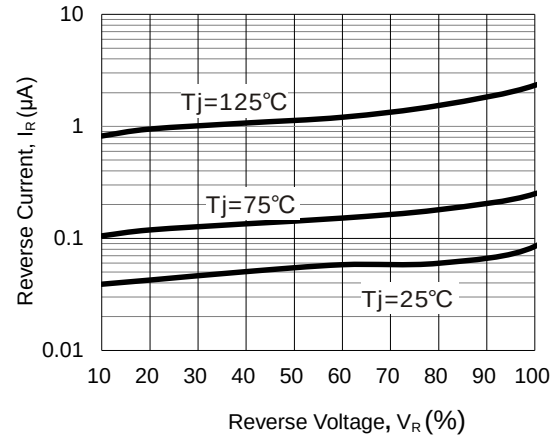


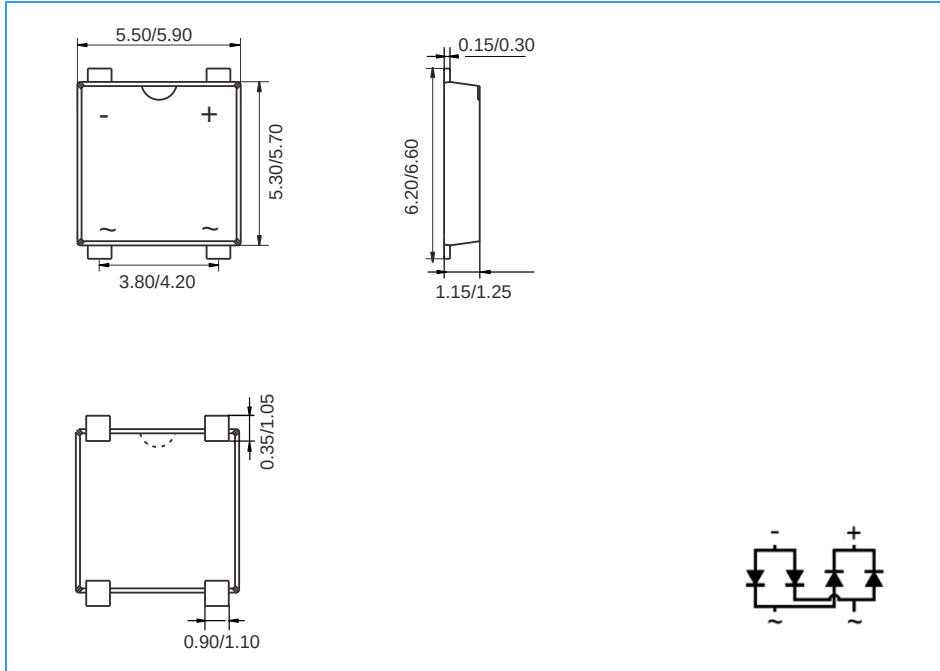
Fig.4 Typical Reverse Characteristics



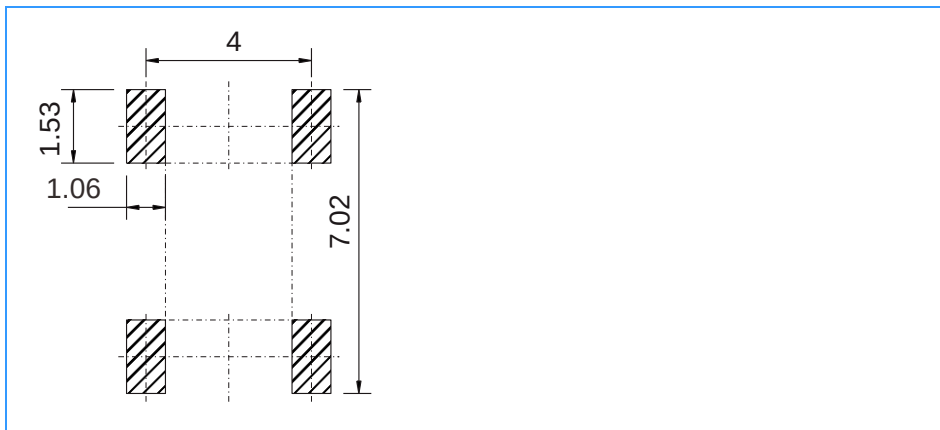
Silicon Bridge Rectifiers

TBF20M

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
TBF20M	TBF20M	TBF	5000 / Tape & Reel