

Technical Data
Data Sheet N1856, Rev. -

**FTB1F-20F THRU FTB10F-20F
2.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER**

Features:

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 2.0 A
- Designed for Surface Mount Application
- Fast reverse recovery time
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

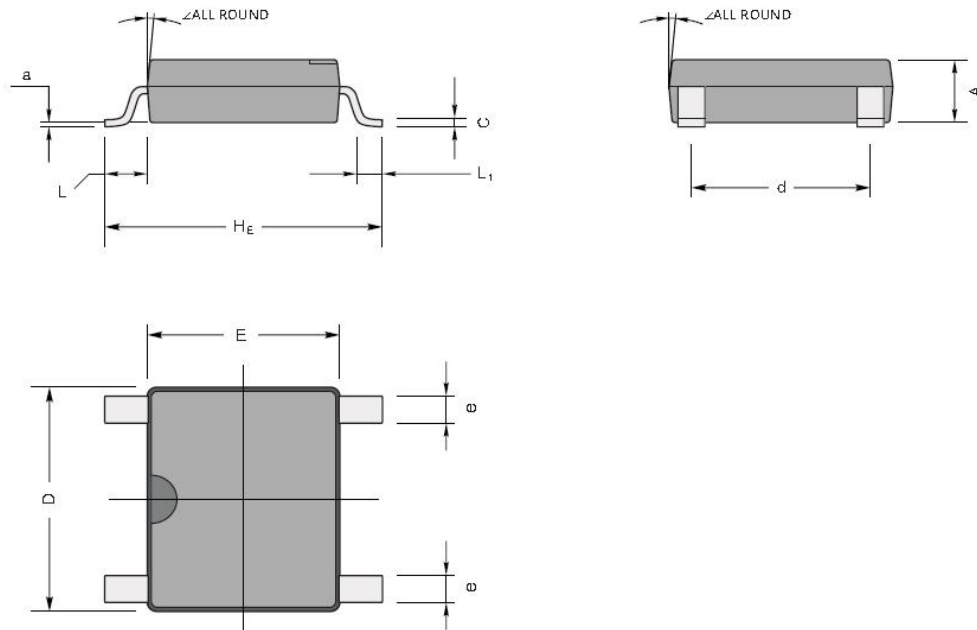
PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

Mechanical Data:

- Case: ABF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: 82 mg



Mechanical Dimensions: In mm/mil

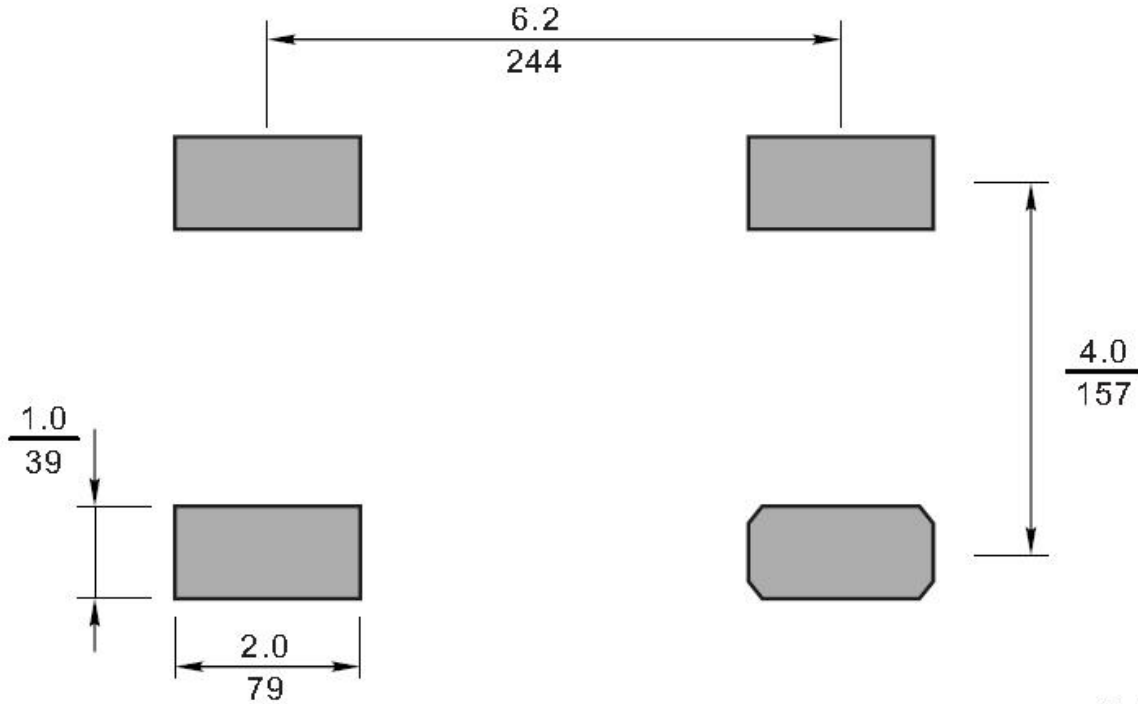


UNIT		A	C	D	E	HE	d	e	L	L1	a	∠
mm	max	1.2	0.22	5.2	4.5	6.4	4.2	0.7	0.95	0.6	0.2	7°
	min	1.0	0.15	4.9	4.2	6.0	3.8	0.5				
mil	max	47	8.7	205	177	252	165	28	37	24	4	
	min	39	5.9	193	166	236	150	20				

ABF

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •


The recommended mounting pad size:



Unit : $\frac{\text{mm}}{(\text{mil})}$

Marking Diagram:

Type number	Marking code
FTB1F-20F	F20F1F
FTB2F-20F	F20F2F
FTB4F-20F	F20F4F
FTB6F-20F	F20F6F
FTB8F-20F	F20F8F
FTB10F-20F	F20F10F



Marking diagram showing the marking code **F20FXXF** on the component.

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	FTB1F -20F	FTB2F -20F	FTB4F -20F	FTB6F -20F	FTB8F -20F	FTB10F -20F	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_A=50^\circ\text{C}$	I_o	2.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60						A
Maximum instantaneous forward voltage at 2.0A	V_F	1.3						V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	5.0 100						μA
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	80						$^\circ\text{C}/\text{W}$
Maximum Reverse Recovery Time (Note 3)	T_{rr}	500						ns
Junction Temperature	T_J	-55 to +150						$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150						$^\circ\text{C}$

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

 2. Mounted on glass epoxy PC board with $4 \times (5 \times 5\text{mm}^2)$ copper pad.

 3. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $IRR=0.25\text{A}$

Fig.1 Average Rectified Output Current Derating Curve

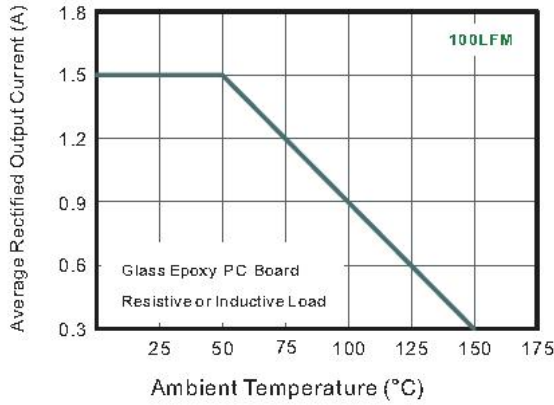


Fig.2 Typical Reverse Characteristics

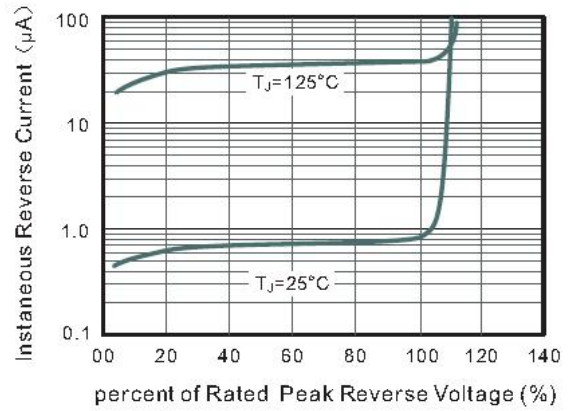


Fig.3 Typical Instantaneous Forward Characteristics

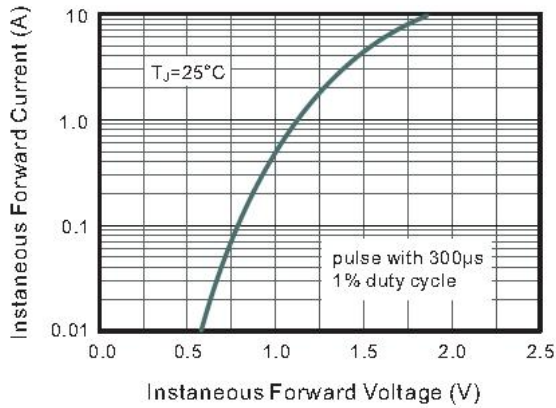


Fig.4 Typical Junction Capacitance

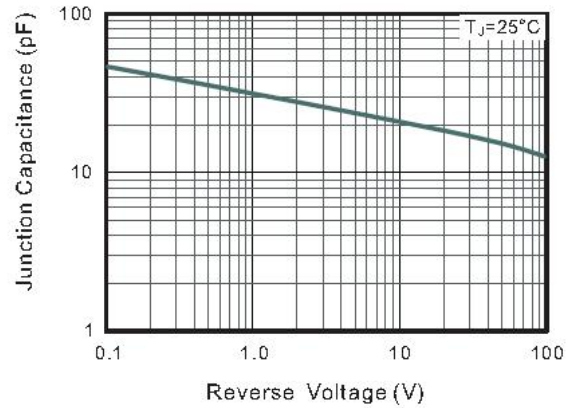
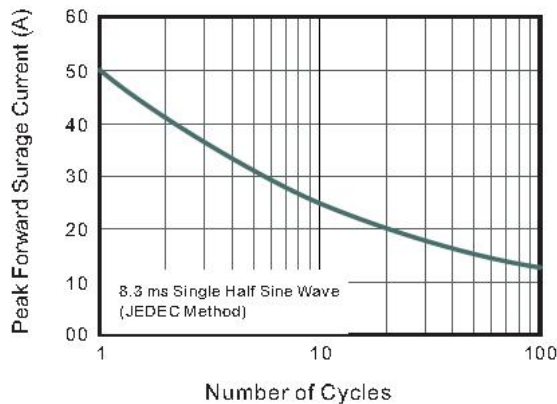


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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