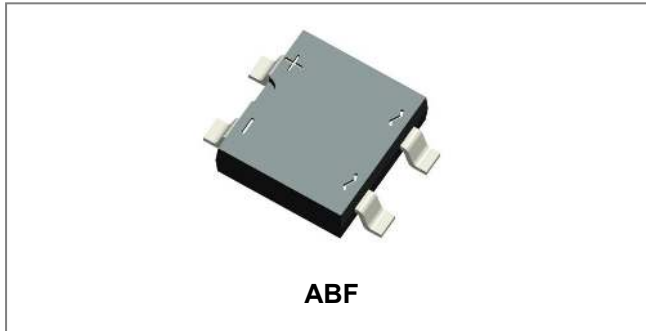


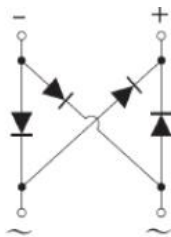
**FTB1F-15F THRU FTB10F-15F  
1.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER**



**Features**

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 1.5 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

**Circuit Diagram**



**Mechanical Data**

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

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

Single Phase half wave 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

Characteristic	Symbol	FTB1F -15F	FTB2F -15F	FTB4F -15F	FTB6F -15F	FTB8F -15F	FTB10F -15F	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{RMS}$	70	140	280	420	560	700	V
Average Forward Output Current @ $T_A=50^\circ\text{C}$	$I_{F(AV)}$	1.5						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50						A

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

Characteristic	Symbol	FTB1F -15F	FTB2F -15F	FTB4F -15F	FTB6F -15F	FTB8F -15F	FTB10F -15F	Units
Forward voltage per element @ $I_F = 1.5\text{A}$	$V_F$	1.3						V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^{\circ}\text{C}$ $T_A = 125^{\circ}\text{C}$	$I_R$	5 100						$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	25						pF
Maximum Reverse Recovery Time (Note 3)	$T_{rr}$ $T_{rr(TYP.)}$	500 300						ns

\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

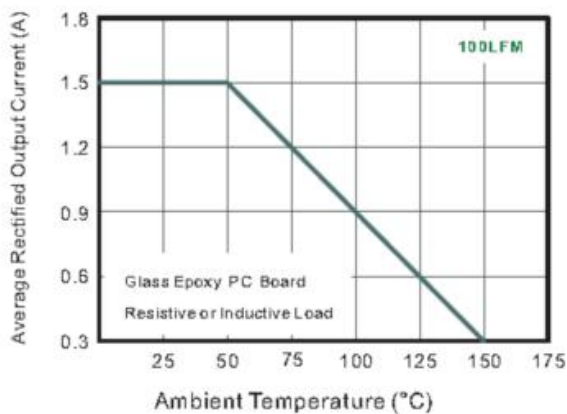
**Thermal-Mechanical Specifications @ $T_A=25^{\circ}\text{C}$  unless otherwise specified**

Characteristic	Symbol	FTB1F -15F	FTB2F -15F	FTB4F -15F	FTB6F -15F	FTB8F -15F	FTB10F -15F	Units
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	80						$^{\circ}\text{C/W}$
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150						$^{\circ}\text{C}$

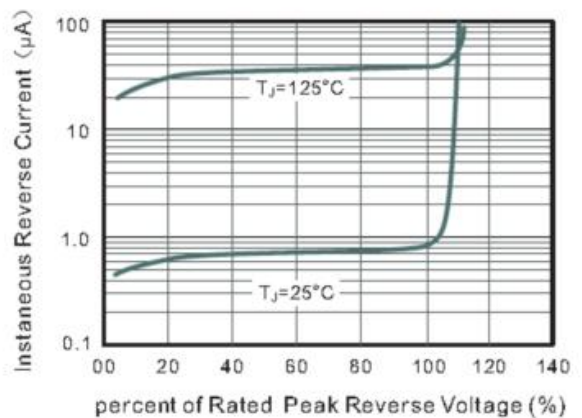
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Mounted on glass epoxy PC board with  $4 \times (5 \times 5\text{mm}^2)$  copper pad.  
3. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $IRR=0.25\text{A}$

**Ratings and Characteristics Curves**

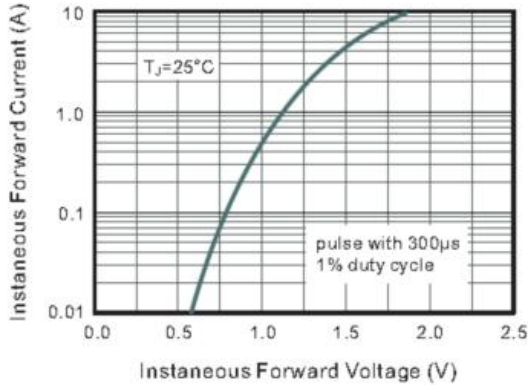
**Fig.1 Average Rectified Output Current Derating Curve**



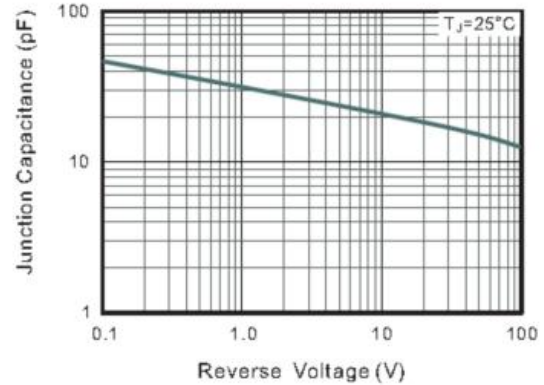
**Fig.2 Typical Reverse Characteristics**



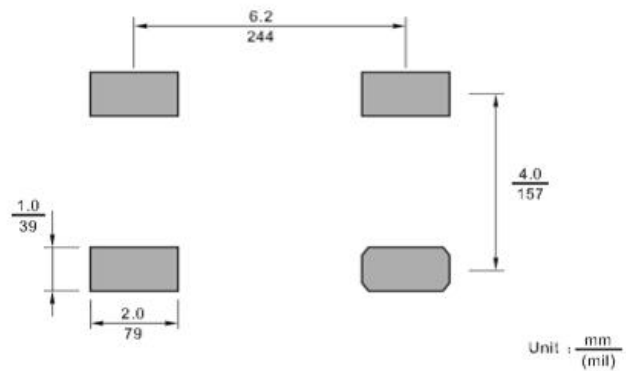
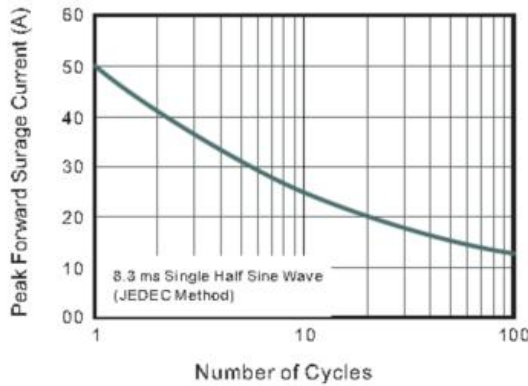
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



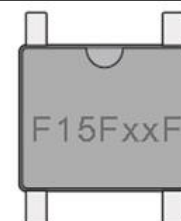
**Ordering Information**

Device	Package	Plating	Shipping
FTB1F-15F THRU FTB10F-15F	ABF	Pure Sn	5000pcs / reel

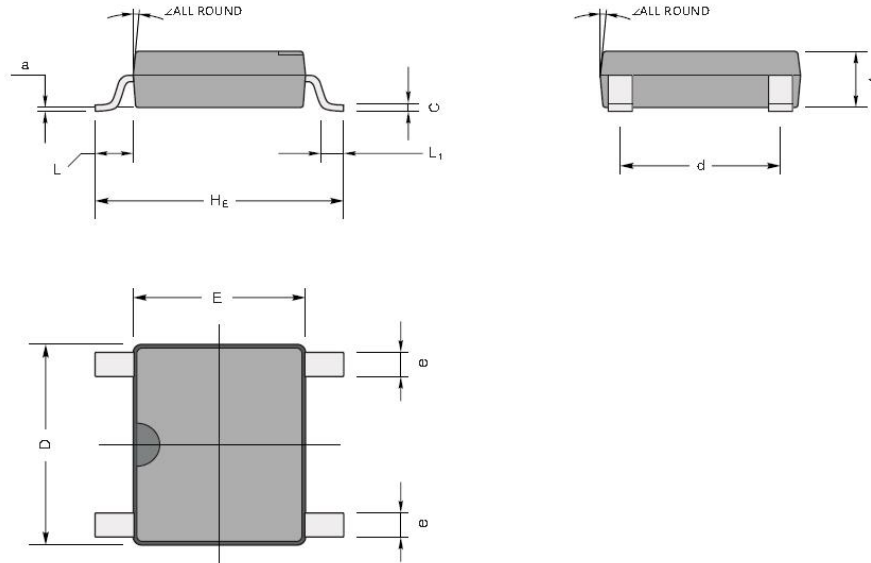
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**

Type number	Marking code
FTB1F-15F	F15F1F
FTB2F-15F	F15 F2F
FTB4F-15F	F15F4F
FTB6F-15F	F15F6F
FTB8F-15F	F15F8F
FTB10F-15F	F15F10F

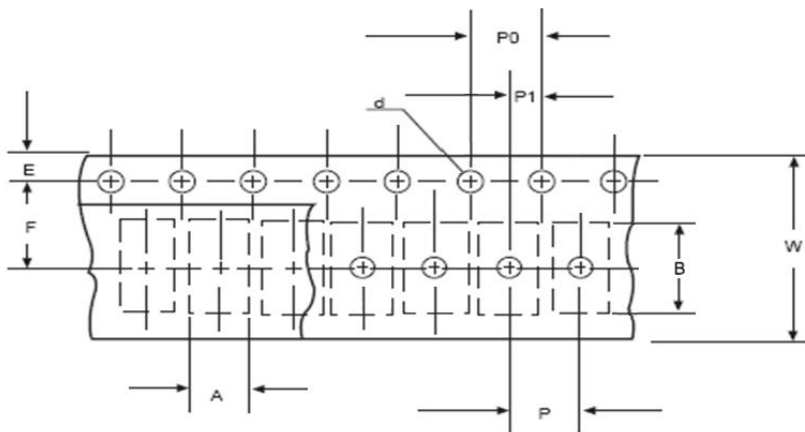


**Mechanical Dimensions ABF(Inches/Millimeters)**



UNIT		A	C	D	E	H <sub>E</sub>	d	e	L	L <sub>1</sub>	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				

**Carrier Tape Specification ABF**



SYMBOL	Millimeters	
	Min.	Max.
A	5.00	5.40
B	6.40	6.80
d	1.40	1.60
E	1.40	1.60
F	5.55	5.75
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	11.50	12.50

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