

# TD151F THRU TD1510F

## Surface Mount Glass passivated Bridge Rectifier

Reverse Voltage - 100 to 1000 V

Forward Current - 1.5 A

### Features

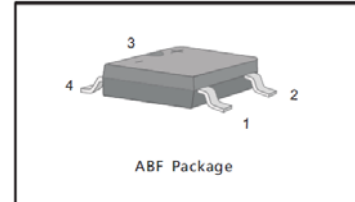
- Glass Passivated Chip Junction
- High Surge Current Capability
- Designed for Surface Mount Application

### Mechanical Data

- Package: ABF
- Terminals: Solderable per MIL-STD-750, Method 2026

### PINNING

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



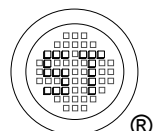
### Maximum Ratings and Electrical characteristics

Single-phase, half-wave, 60 Hz, resistive or inductive load rating at 25°C, unless otherwise specified, for capacitive load, derate current by 20 %.

Parameter	Symbols	TD151F	TD152F	TD154F	TD156F	TD158F	TD1510F	Units
	Marking	15F1	15F2	15F4	15F6	15F8	15F10	-
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 Forward Current $T_a = 50^\circ\text{C}$	$I_{F(AV)}$	1.5						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	50						A
Maximum Instantaneous Forward Voltage at 1.5 A	$V_F$	1.1						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 <sup>1)</sup>	$C_j$	25						pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	60 16						$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	- 55 to + 150						$^\circ\text{C}$

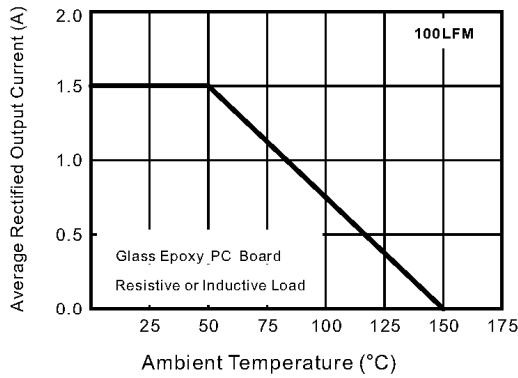
<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V D.C.

<sup>2)</sup> Mounted on glass epoxy PC board with 4 X ( 5 X 5 mm<sup>2</sup> ) copper pad.

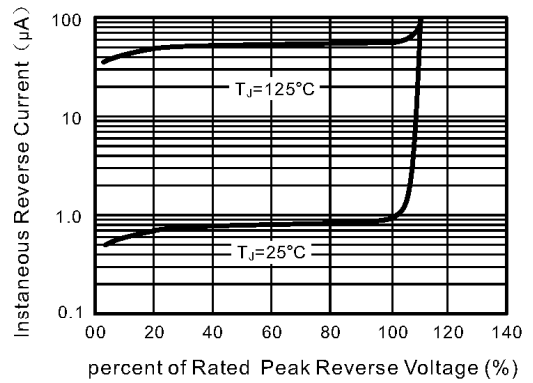


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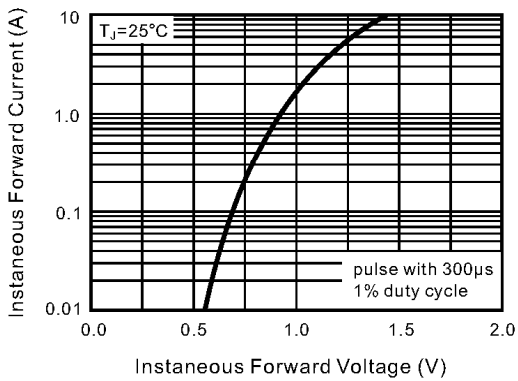
**Fig.1 Average Rectified Output Current Derating Curve**



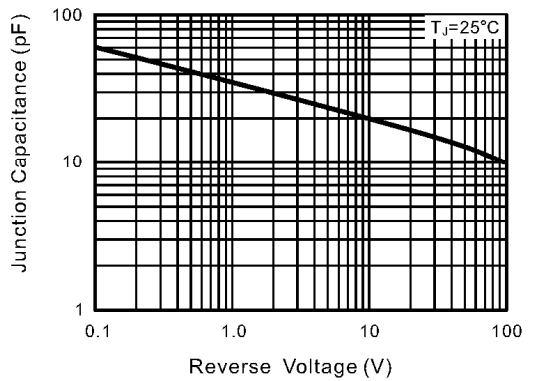
**Fig.2 Typical Reverse Characteristics**



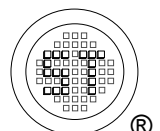
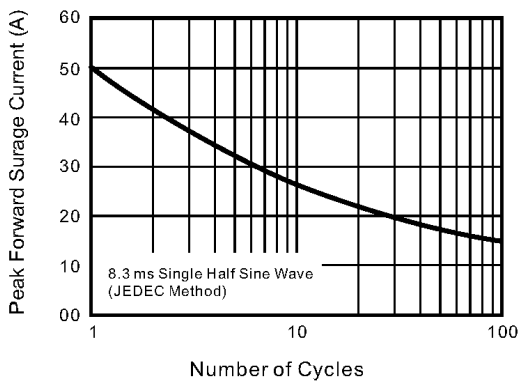
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



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

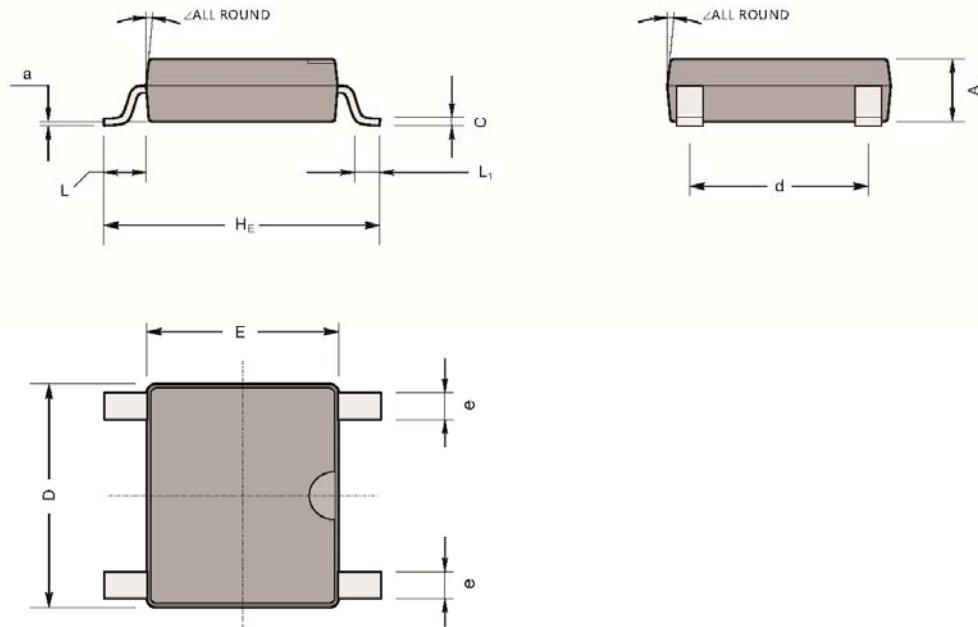


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## PACKAGE OUTLINE

ABF

Plastic surface mounted package; 4 leads



UNIT	A	C	D	E	$H_E$	d	e	L	L1	a	$\sphericalangle$
mm	1.2	0.22	5.2	4.5	6.4	4.2	0.7	0.95	0.6	0.1	7°
	1	0.15	4.9	4.2	6	3.6	0.5				

## Recommended Soldering Footprint

