

TD01F10 THRU TD10F10

Surface Mount Fast Recovery Bridge Rectifier

Reverse Voltage - 100 to 1000 V

Forward Current - 1 A

Features

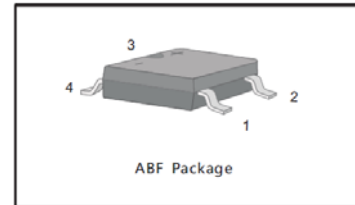
- Glass Passivated Chip Junction
- Fast reverse recovery time

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

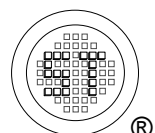
Single-phase, half-wave, 60 Hz, resistive or inductive load rating at 25°C, unless otherwise specified, for capacitive load, derate current by 20 %.

Parameter	Symbols	TD01F10	TD02F10	TD04F10	TD06F10	TD08F10	TD10F10	Units
	Marking	F10F01	F10F02	F10F04	F10F06	F10F08	F10F10	-
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 $T_a = 75^\circ\text{C}$	I_O	1						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	35						A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.3						V
Maximum DC Reverse Current at $T_a = 25^\circ\text{C}$ Rated DC Blocking Voltage $T_a = 125^\circ\text{C}$	I_R	5 50						μA
Typical Junction Capacitance ¹⁾	C_j	13						pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	85						$^\circ\text{C/W}$
Maximum Reverse Recovery Time ³⁾	t_{rr}	500						ns
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150						$^\circ\text{C}$

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C.

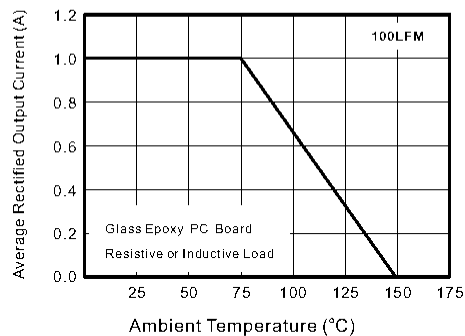
²⁾ Mounted on glass epoxy PC board with 4 X (5 X 5 mm²) copper pad.

³⁾ Measured with $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$.

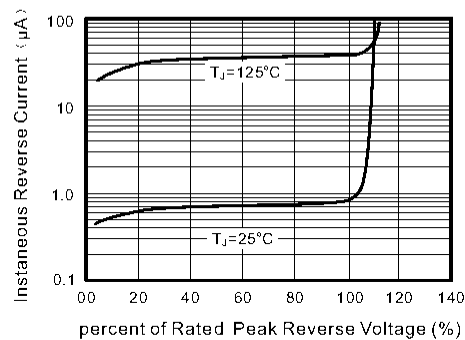


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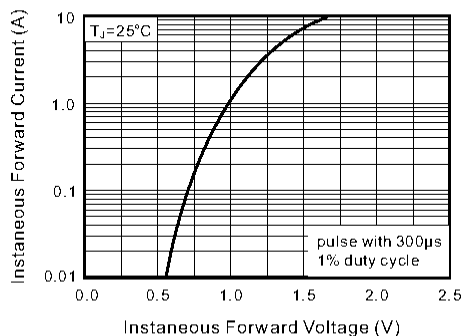
Average Rectified Output Current
Derating Curve



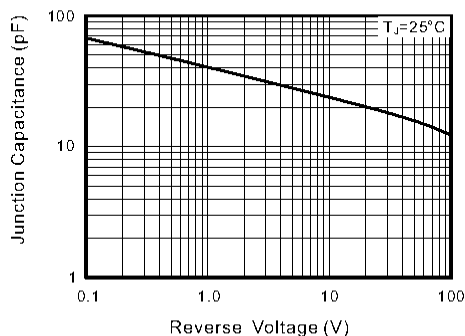
Typical Reverse Characteristics



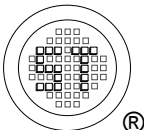
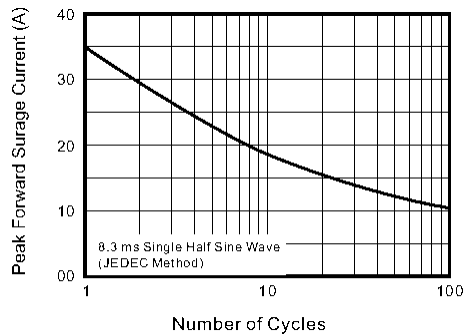
Typical Instantaneous Forward
Characteristics



Typical Junction Capacitance



Maximum Non-Repetitive Peak
Forward Surge Current

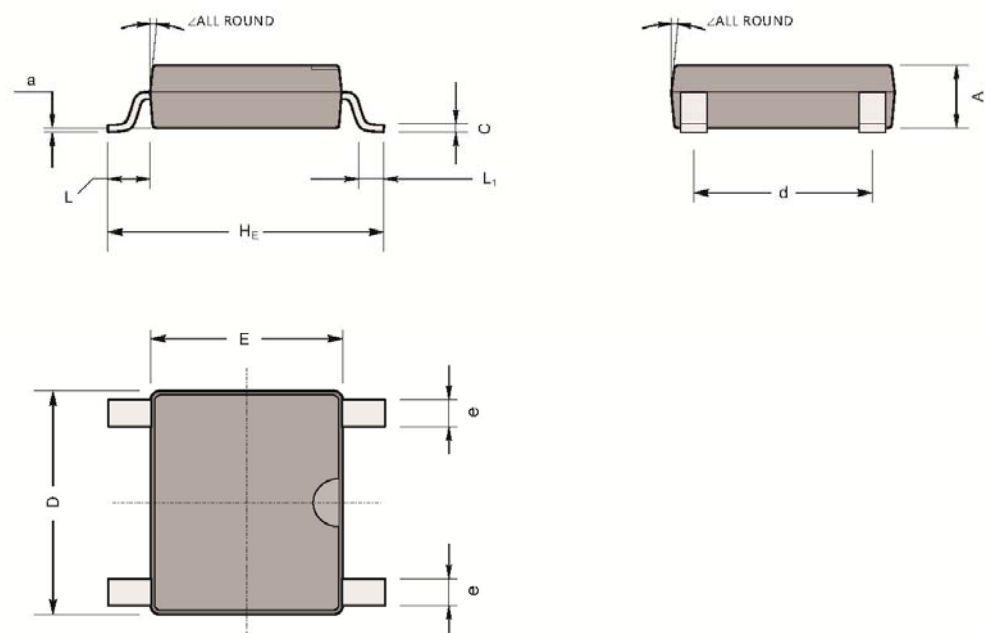


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PACKAGE OUTLINE

ABF

Plastic surface mounted package; 4 leads



UNIT	A	C	D	E	H_E	d	e	L	L1	a	$\angle$
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	3.8	0.5				

Recommended Soldering Footprint

