

TD01F15 THRU TD10F15-HAF

Surface Mount Fast Recovery Bridge Rectifier
Reverse Voltage - 100 to 1000 V
Forward Current - 1.5 A

Features

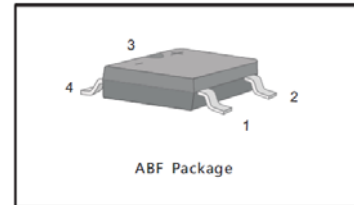
- Glass Passivated Chip Junction
- High Surge Current Capability
- Halogen and Antimony Free(HAF), RoHS compliant

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 | TD01F15 | TD02F15 | TD04F15 | TD06F15 | TD08F15 | TD10F15 | Units |
|---|----------------|---------------|---------|---------|---------|---------|---------|------------------|
| | Marking | F15FL01 | F15FL02 | F15FL04 | F15FL06 | F15FL08 | F15FL10 | |
| 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 50 | | | | | | μA |
| Typical Junction Capacitance ¹⁾ | C_j | 30 | | | | | | pF |
| Maximum Reverse Recovery Time ²⁾ | 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.

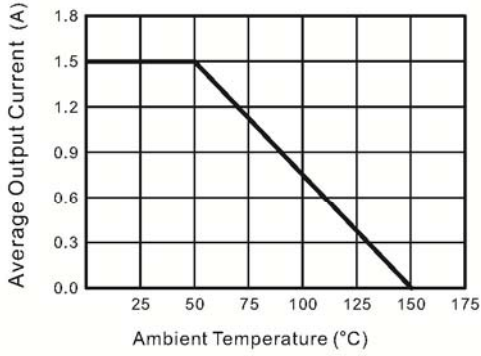
²⁾ Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.

TOP DYNAMIC

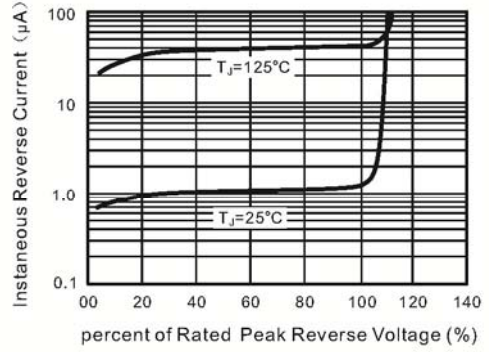


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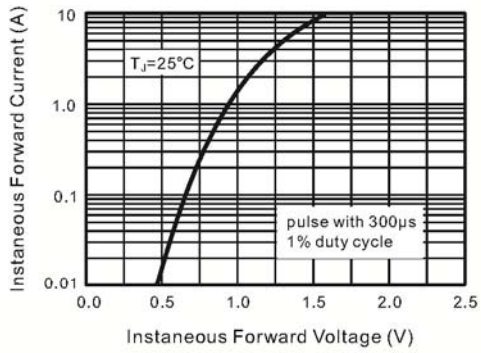
Forward Current Derating Curve



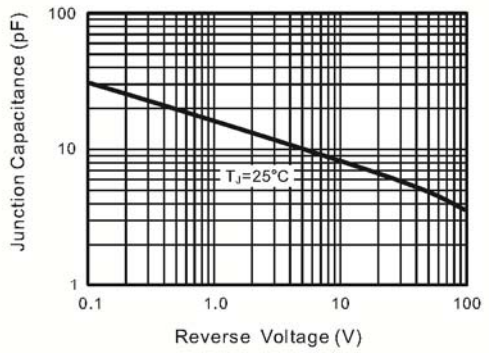
Typical Reverse Characteristics



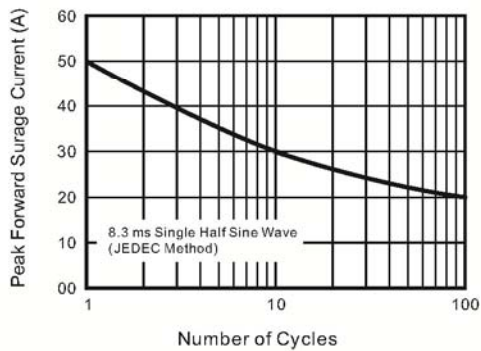
Typical Instantaneous Forward Characteristics



Typical Junction Capacitance



Maximum Non-Repetitive Peak Forward Surge Current



TOP DYNAMIC

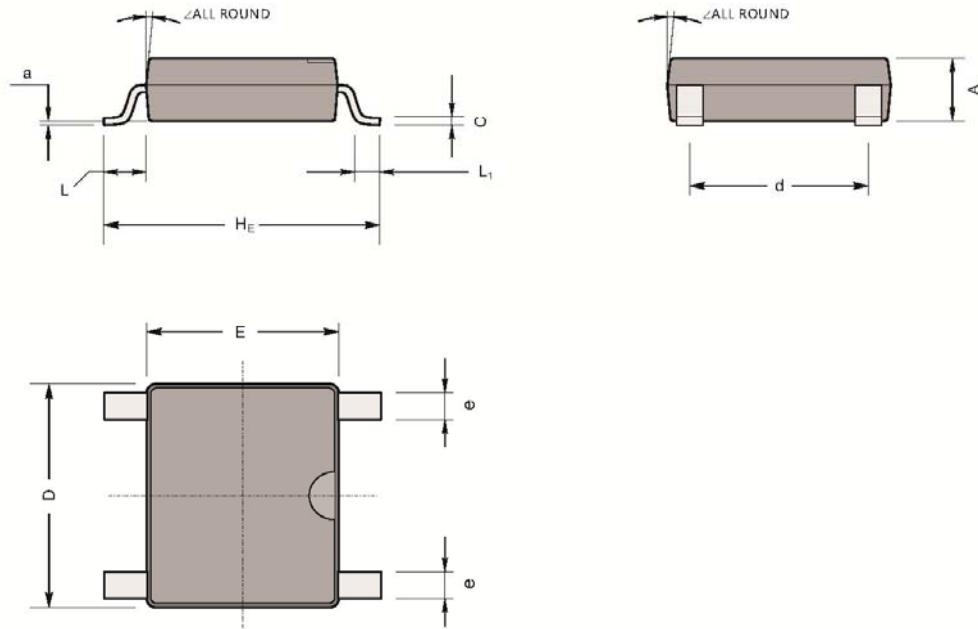


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PACKAGE OUTLINE

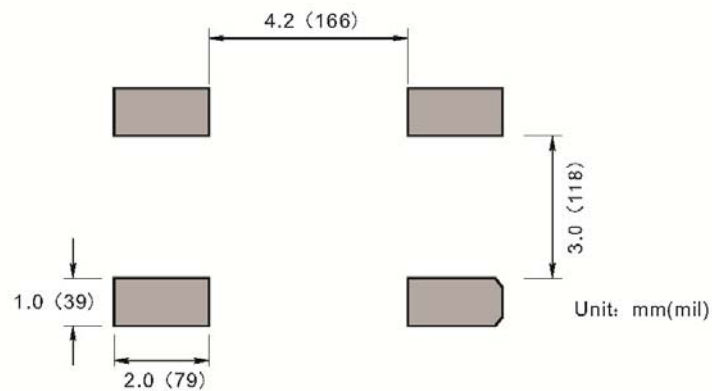
ABF

Plastic surface mounted package; 4 leads



| UNIT | A | C | D | E | HE | d | e | L | L1 | a | ∠ |
|------|-----|------|-----|-----|-----|-----|-----|------|-----|-----|----|
| 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



TOP DYNAMIC



ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 50114012
 OHSAS 18001 : 2007 Certificate No. 0513150806
 IECQ QC 080000 Certificate No. ECU18001-K02

Dated: 26/12/2015 JD Rev: 04