

# TD10RF-HAF

**Surface Mount Glass passivated Bridge Rectifier**  
**Reverse Voltage - 1000 V**  
**Forward Current - 1 A**

## Features

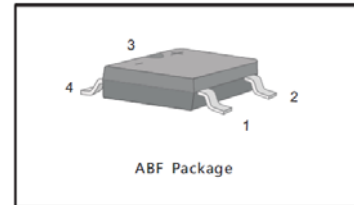
- Glass Passivated Chip
- High Surge Current Capability
- Halogen and Antimony Free(HAF), RoHS compliant

## Mechanical Data

- **Package:** ABF
- **Polarity:** Polarity symbol marked on body

## 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 %.

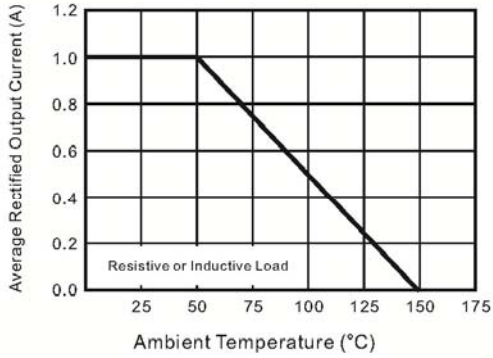
Parameter	Symbols	TD10RF	Units
	Marking	10R10	-
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS voltage	$V_{RMS}$	700	V
Maximum DC Blocking Voltage	$V_{DC}$	1000	V
Average Forward Current $T_a = 50^\circ\text{C}$	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	35	A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	1.1	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	$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_j$	13	pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	82 20	$^\circ\text{C/W}$
Operating Junction 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.

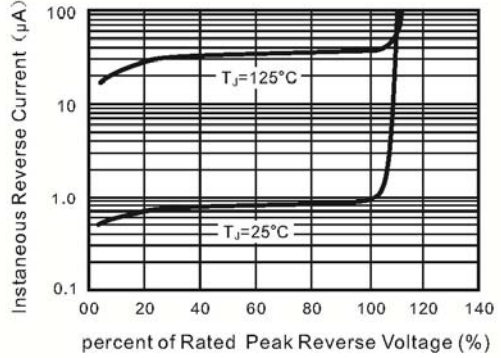
<sup>2)</sup> Mounted on glass epoxy PC board with 4 x ( 5 x 5 mm<sup>2</sup> ) copper pad.

**TOP DYNAMIC**

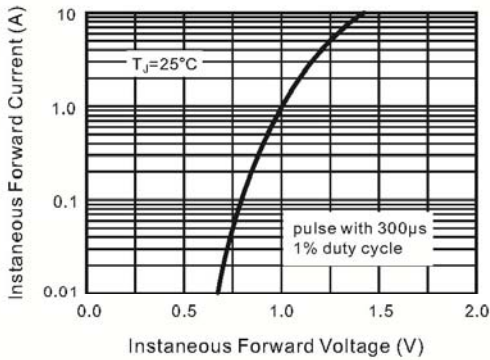
**Average Rectified Output Current Derating Curve**



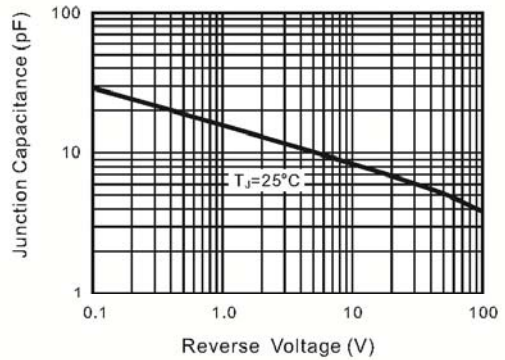
**Typical Reverse Characteristics**



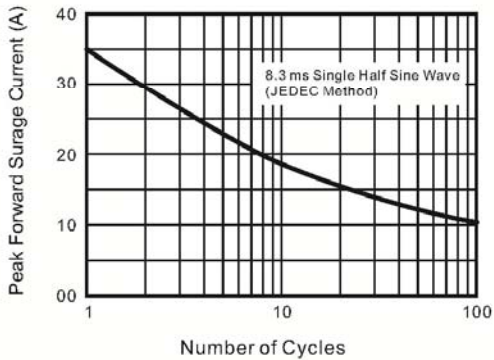
**Typical Instantaneous Forward Characteristics**



**Typical Junction Capacitance**



**Maximum Non-Repetitive Peak Forward Surge Current**

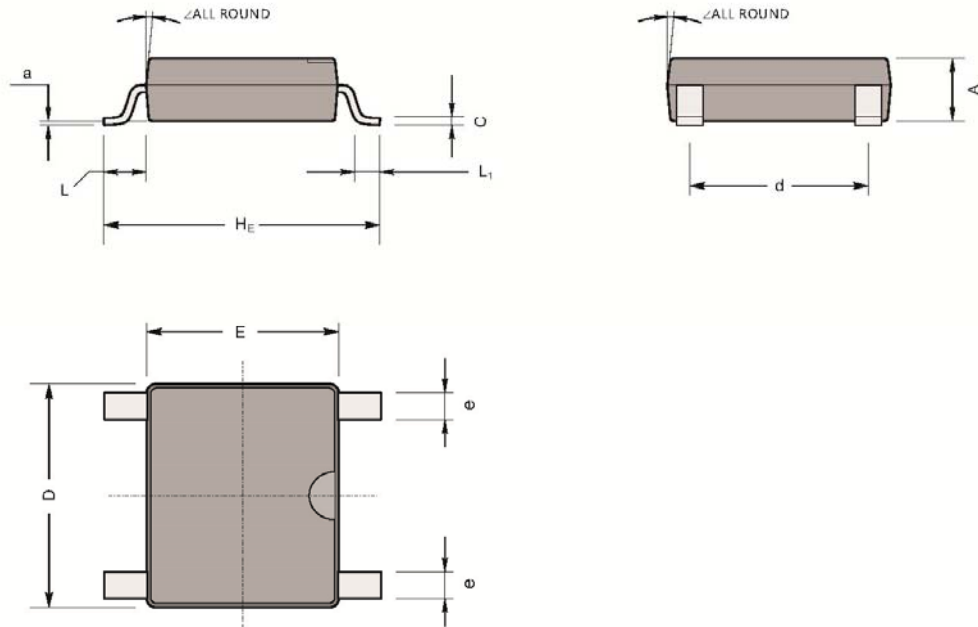


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## PACKAGE OUTLINE

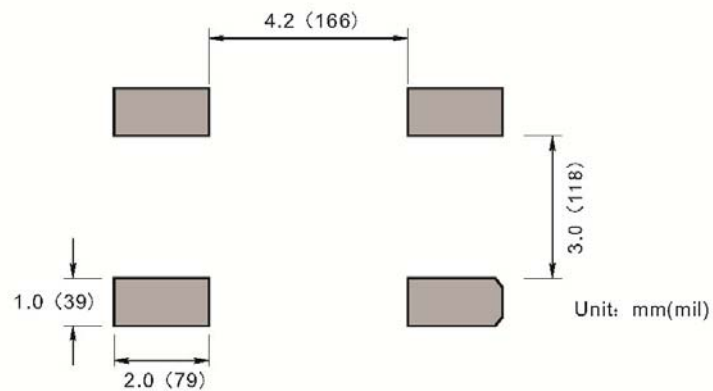
ABF

Plastic surface mounted package; 4 leads



UNIT	A	C	D	E	$H_E$	d	e	L	$L_1$	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



**TOP DYNAMIC**



Dated: 29/01/2016 Rev: 01