

# TD1S THRU TD10S-HAF

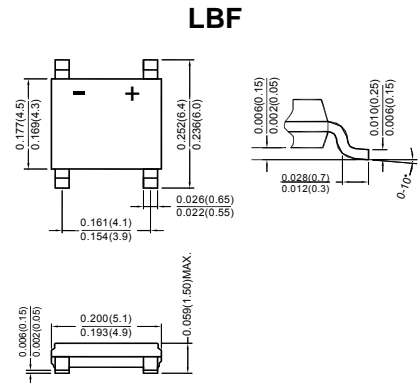
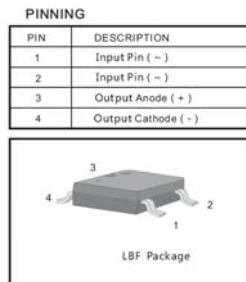
## Surface Mount Bridge Rectifier

Reverse Voltage - 100 to 1000 V

Forward Current - 0.8 A

### Features

- Ideal for printed circuit board
- Glass passivated chip
- Reliable low cost construction utilizing molded plastic technique
- Small size, simple installation
- Halogen and Antimony Free(HAF), RoHS compliant



### Mechanical Data

- **Package:** LBF
- **Polarity:** Polarity symbol marked on body
- **Marking Code:** TB10S

### 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	TD1S	TD2S	TD4S	TD6S	TD8S	TD10S	Units
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
Maximum Average Forward Current at $T_a = 40^\circ\text{C}$ on Glass Epoxy P.C.B.	$I_{F(AV)}$	0.8						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	25						A
Maximum Instantaneous Forward Voltage at Forward Current 0.4 A 0.8 A	$V_F$	0.95 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>	$C_j$	13						pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	80 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 1MHz and applied reverse voltage of 4 V D.C.

<sup>2)</sup> Mounted on glass epoxy P.C.B. with 1.3 mm<sup>2</sup> copper pad.

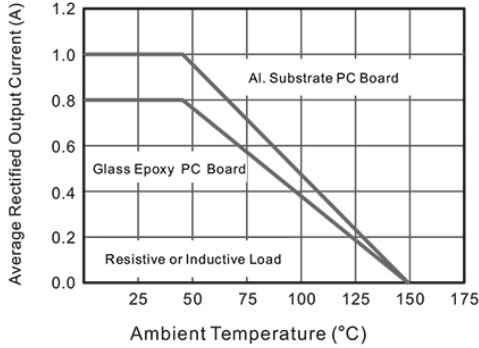
**TOP DYNAMIC**



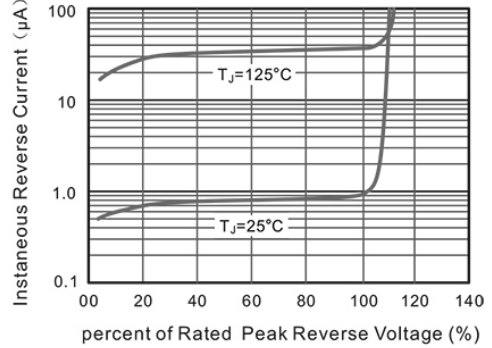
Dated: 29/02/2016 JD Rev: 06

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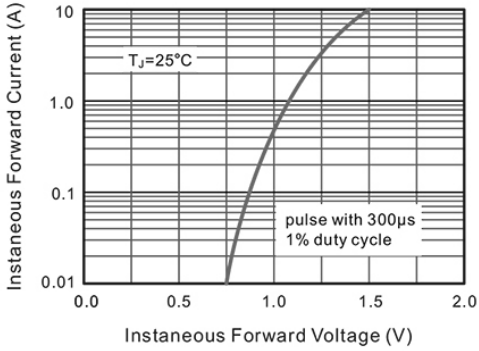
**Average Rectified Output Current Derating Curve**



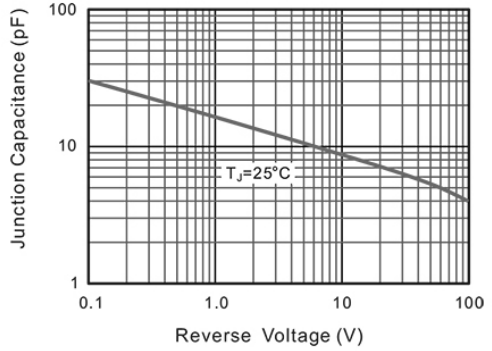
**Typical Reverse Characteristics**



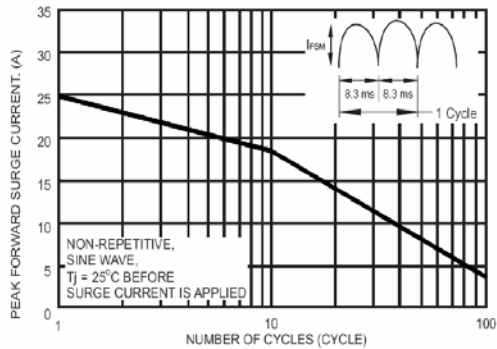
**Typical Instantaneous Forward Characteristics**



**Typical Junction Capacitance**



**MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**TOP DYNAMIC**

