

# TB1S-20AT THRU TB10S-20AT

## SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIERS

Forward Current-2A

Reverse Voltage-100V to 1000V

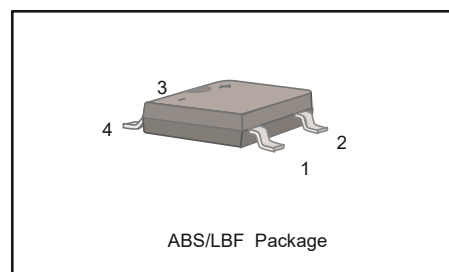
### FEATURES

- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ High surge current capability
- ◆ Lead free in comply with EU RoHS2011/65/EU directives

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

### MECHANICAL DATA

- ◆ Case: ABS/LBF molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750 , Method 2026
- ◆ Weight: Approximated 0.088 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

PARAMETER	SYMBOL	TB1S-20AT	TB2S-20AT	TB4S-20AT	TB6S-20AT	TB8S-20AT	TB10S-20AT	UNIT
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 Rectified Current	$I_{F(AV)}$	2						A
Peak Forward Surge Current (Note1)	$I_{FSM}$	50						A
Maximum Forward Voltage at 2.0A	$V_F$	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	5.0 100						$\mu\text{A}$
Typical Junction Capacitance (Note2)	$C_J$	25						pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$ $R_{\theta JC}$	60 16						$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150						$^\circ\text{C}$

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

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

3. Mounted on 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas.

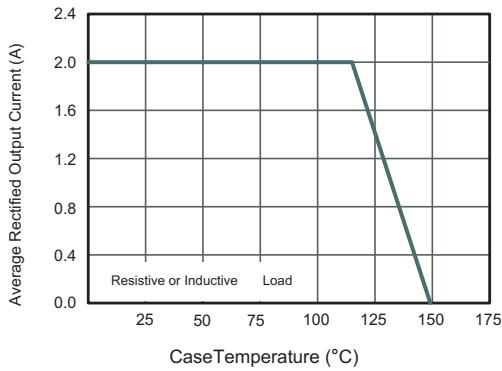
Dated: 07/2017

Rev:2.0

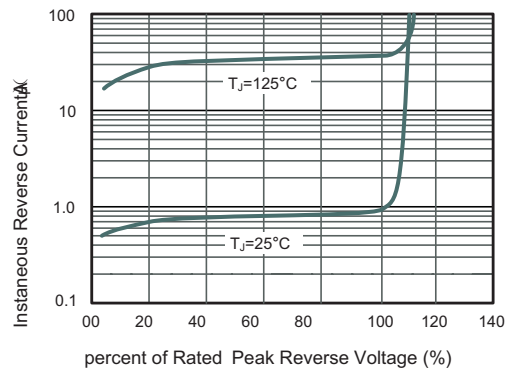
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## RATINGS AND CHARACTERISTIC CURVES

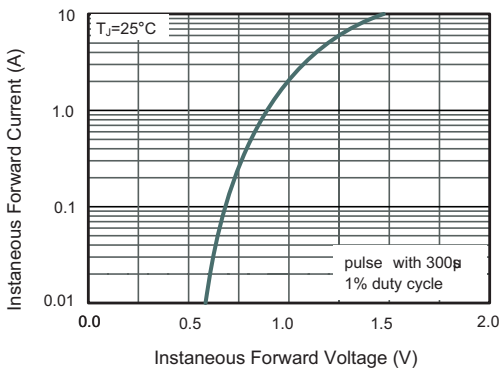
**Fig.1 Average Rectified Output Current Derating Curve**



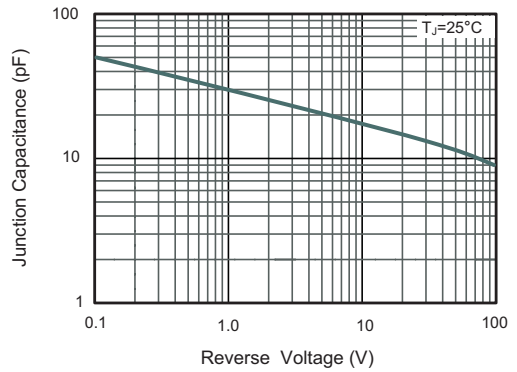
**Fig.2 Typical Reverse Characteristics**



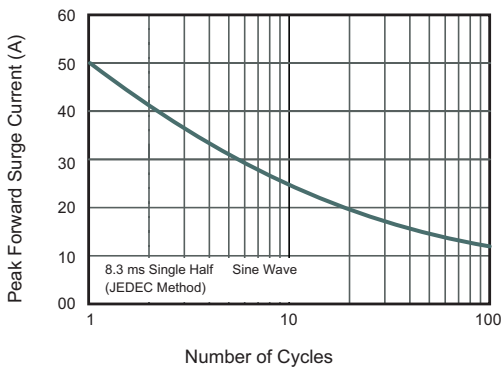
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



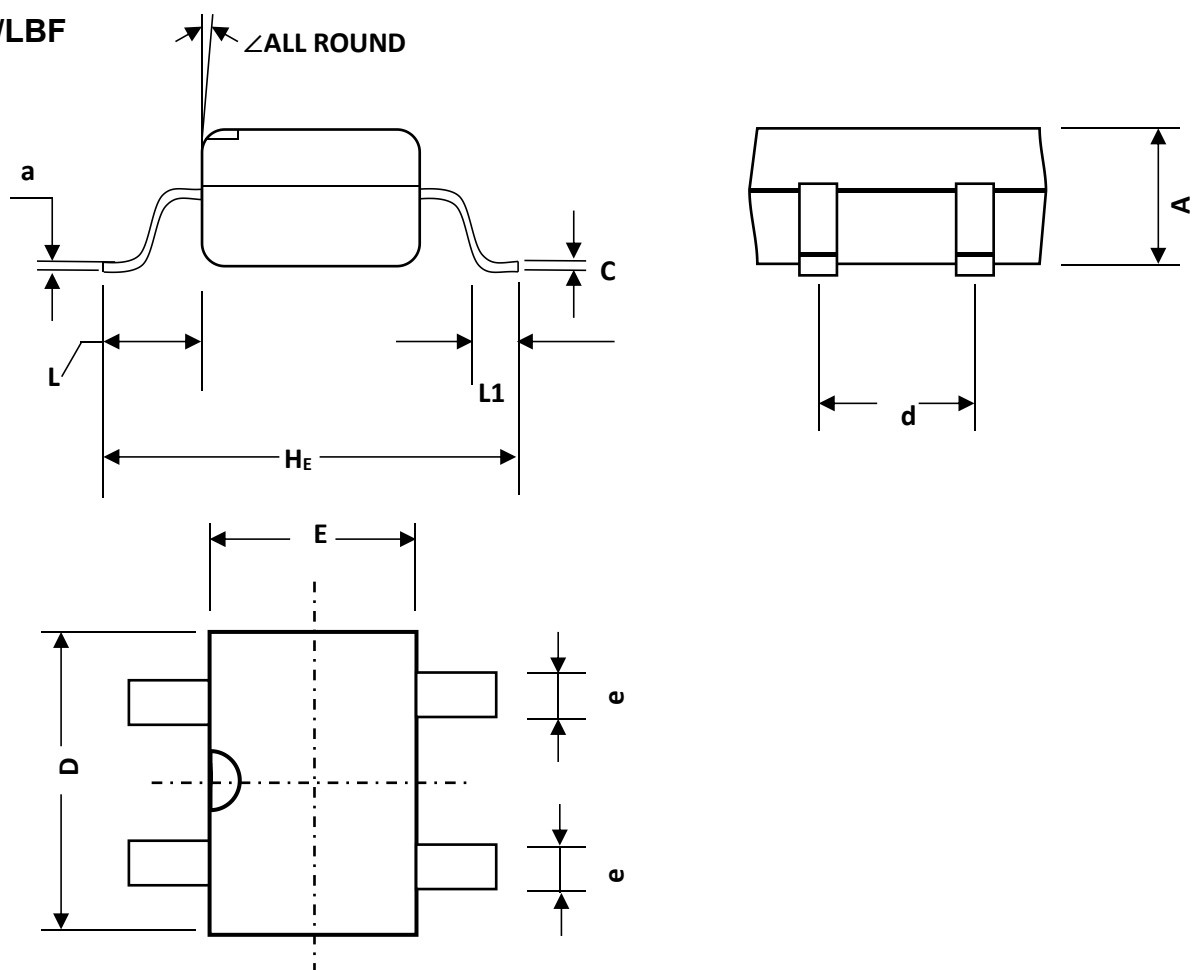
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



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## PACKAGE OUTLINE

ABS/LBF



ABS/LBF mechanical data

UNIT		A	C	D	E	He	d	e	L	L1	a	∠
mm	max	1.5	0.22	5.2	4.5	6.4	4.2	0.7	0.95	0.6	0.2	7°
	min	1.3	0.15	4.9	4.2	6.0	3.8	0.5				
mil	max	59	8.7	205	177	252	165	28	37	24	8	
	min	51	5.9	193	166	236	150	20				

### ORDERING INFORMATION

Device	Package	Shipping
TB1S-20AT thru TB10S-20AT	ABS/LBF	3,000/Tape & Reel (11 inches)
		5,000/Tape & Reel (13 inches)

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