

TB1F-20AT THRU TB10F-20AT

SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIERS

Forward Current: 2A

Reverse Voltage: 100V to 1000V

FEATURES

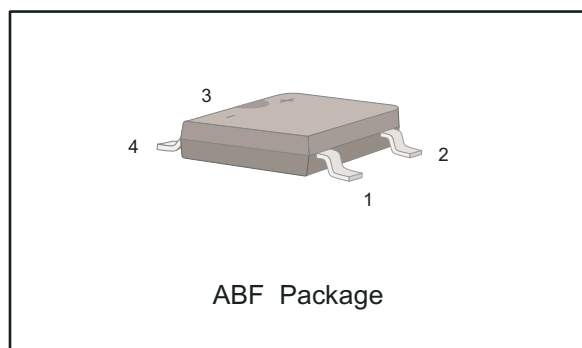
- ◆ Reverse Voltage: 100 to 1000 V
- ◆ Forward Current 2.0 A
- ◆ High Surge Current Capability
- ◆ Designed for Surface Mount Application
- ◆ Glass Passivated Chip Junction

PINNING

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

MECHANICAL DATA

- ◆ Case: ABF
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Weight: 82 mg(Approx)



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	TB1F-20AT	TB2F-20AT	TB4F-20AT	TB6F-20AT	TB8F-20AT	TB10F-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 at $T_C = 125^\circ\text{C}$	$I_{F(AV)}$	2.0						A
Peak Forward Surge Current ^(Note1)	I_{FSM}	55						A
Maximum Forward Voltage at 2.0A	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_A = 25^\circ\text{C}$ at $T_A = 125^\circ\text{C}$	I_R	5 100						μA
Typical Junction Capacitance ^(Note2)	C_J	30						pF
Typical Thermal Resistance ^(Note3)	$R_{\theta JA}$ $R_{\theta JC}$	60 16						$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150						$^\circ\text{C}$
Storage Temperature Range	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 4 X 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

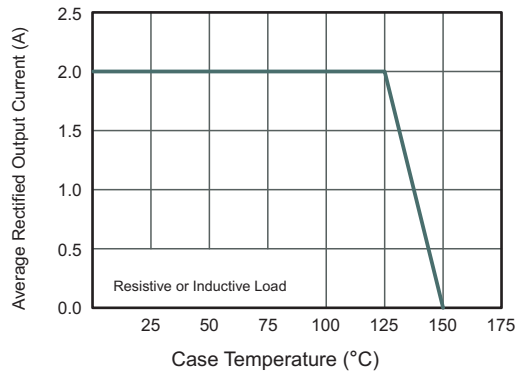


Fig.2 Typical Reverse Characteristics

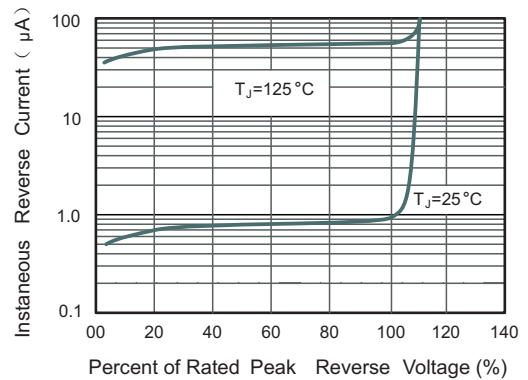


Fig.3 Typical Instantaneous Forward Characteristics

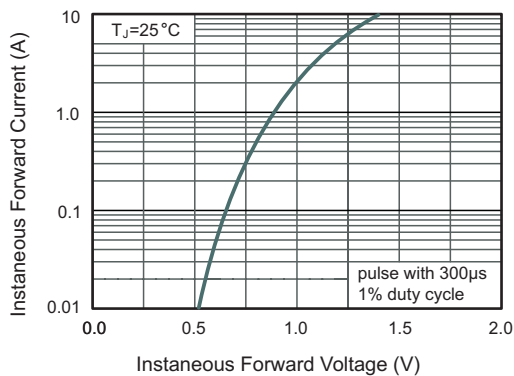


Fig.4 Typical Junction Capacitance

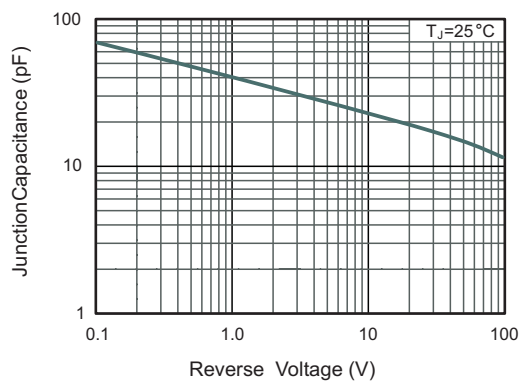
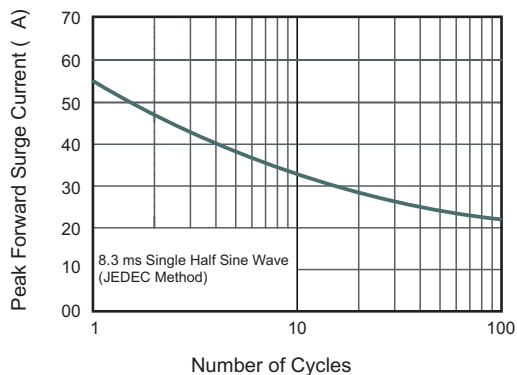


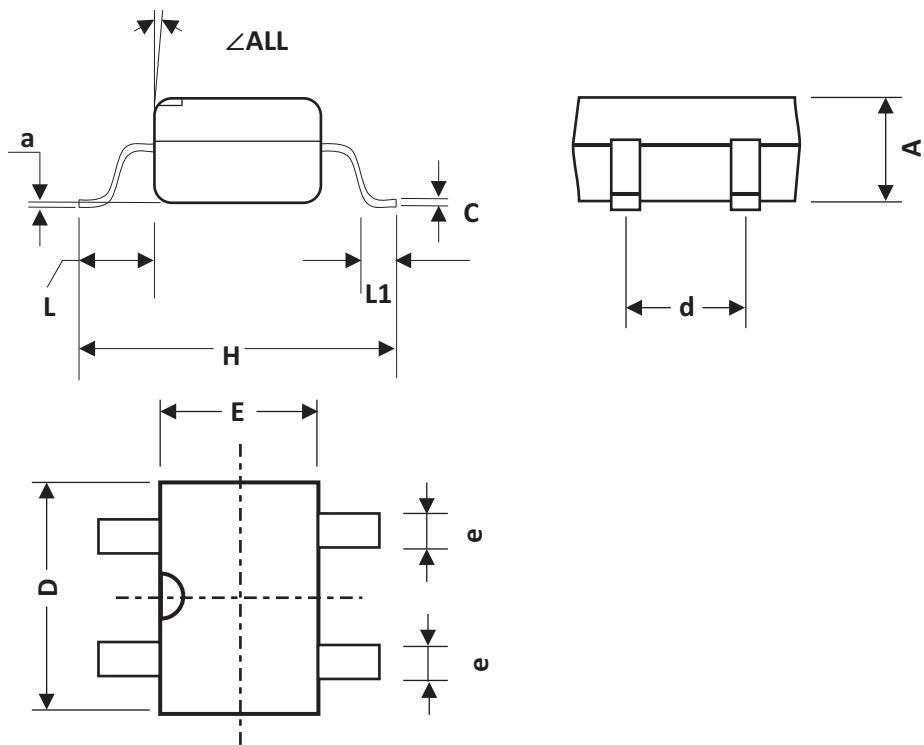
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



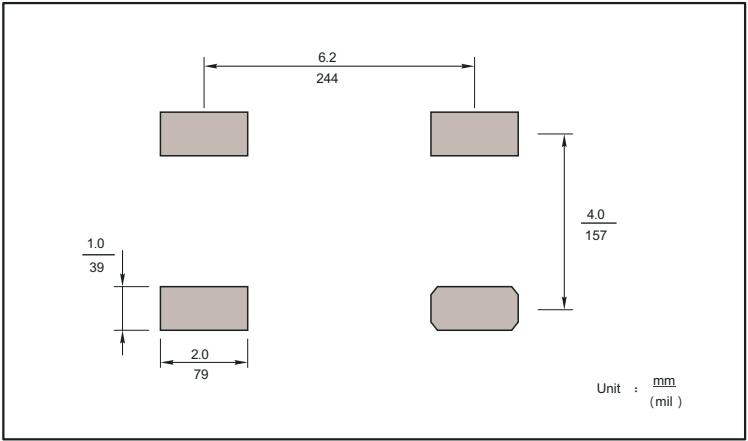
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PACKAGE OUTLINE

ABF



RECOMMENDED MOUNTING PAD SIZE



ABF

mechanical data

UNIT		A	C	D	E	H _E	d	e	L	L ₁	a	∠
mm	max	1.2	0.22	5.2	4.5	6.4	4.2	0.7	0.95	0.6	0.2	7°
	min	1.0	0.15	4.5	3.6	6.0	2.3	0.5				
mil	max	47	8.7	205	177	252	165	28	37	24	8	
	min	39	5.9	193	166	236	150	20				

ORDERING INFORMATION

Device	Package	Shipping
TB1F-20AT thru TB10F-20AT	ABF	5,000/Tape & Reel (13 inches)

Dated: 03/2017
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