

### 1A SURFACE MOUNT SCHOTTKY BRIDGE

#### FEATURES:

- Reverse Voltage - 40 to 200 V
- Forward Current - 1.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

#### MECHANICAL DATA

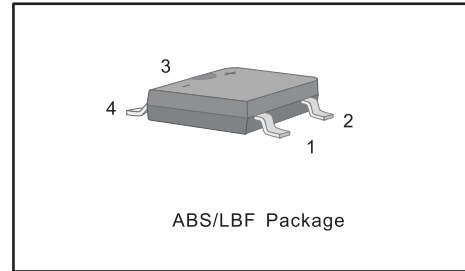
- Case: ABS/LBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 88mg 0.0031oz

#### 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 derate by 20 %.

#### PINNING

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

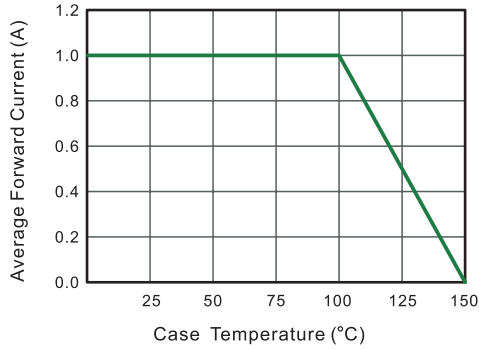


Parameter	Symbols	TB14S	TB16S	TB18S	TB110S	TB120S	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	60	80	100	200	V
Maximum RMS voltage	$V_{RMS}$	28	42	56	70	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	80	100	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	40		30			A
Max Instantaneous Forward Voltage at 1 A	$V_F$	0.55	0.70	0.85			V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.3 10		0.2 5		0.1 2	mA
Typical Junction Capacitance <sup>1)</sup>	$C_j$	110	80				pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	95					°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150					°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150					°C

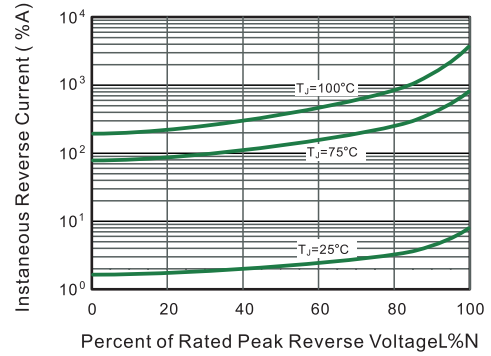
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" ( 3.81×3.81 cm ) copper pad.

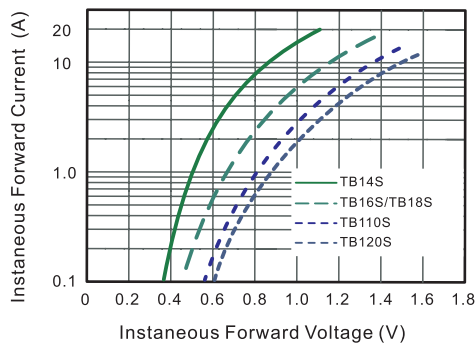
**Fig.1 Forward Current Derating Curve**



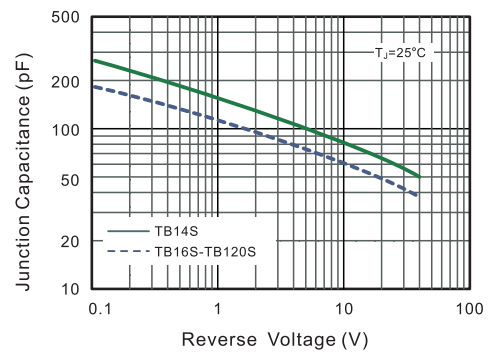
**Fig.2 Typical Reverse Characteristics**



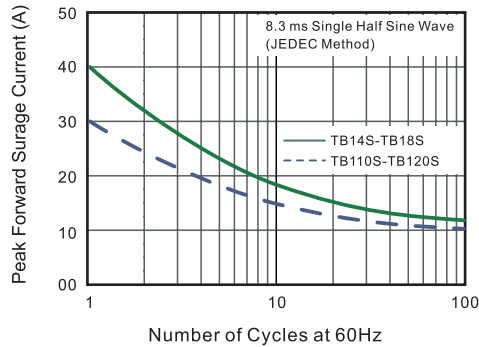
**Fig.3 Typical Forward Characteristic**



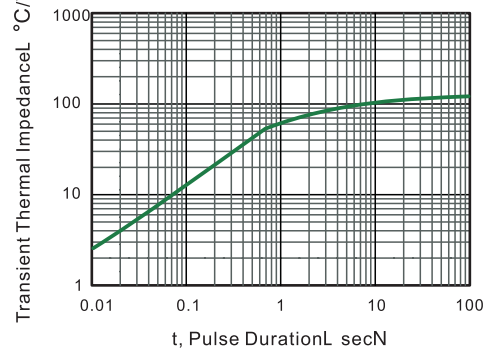
**Fig.4 Typical Junction Capacitance**



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



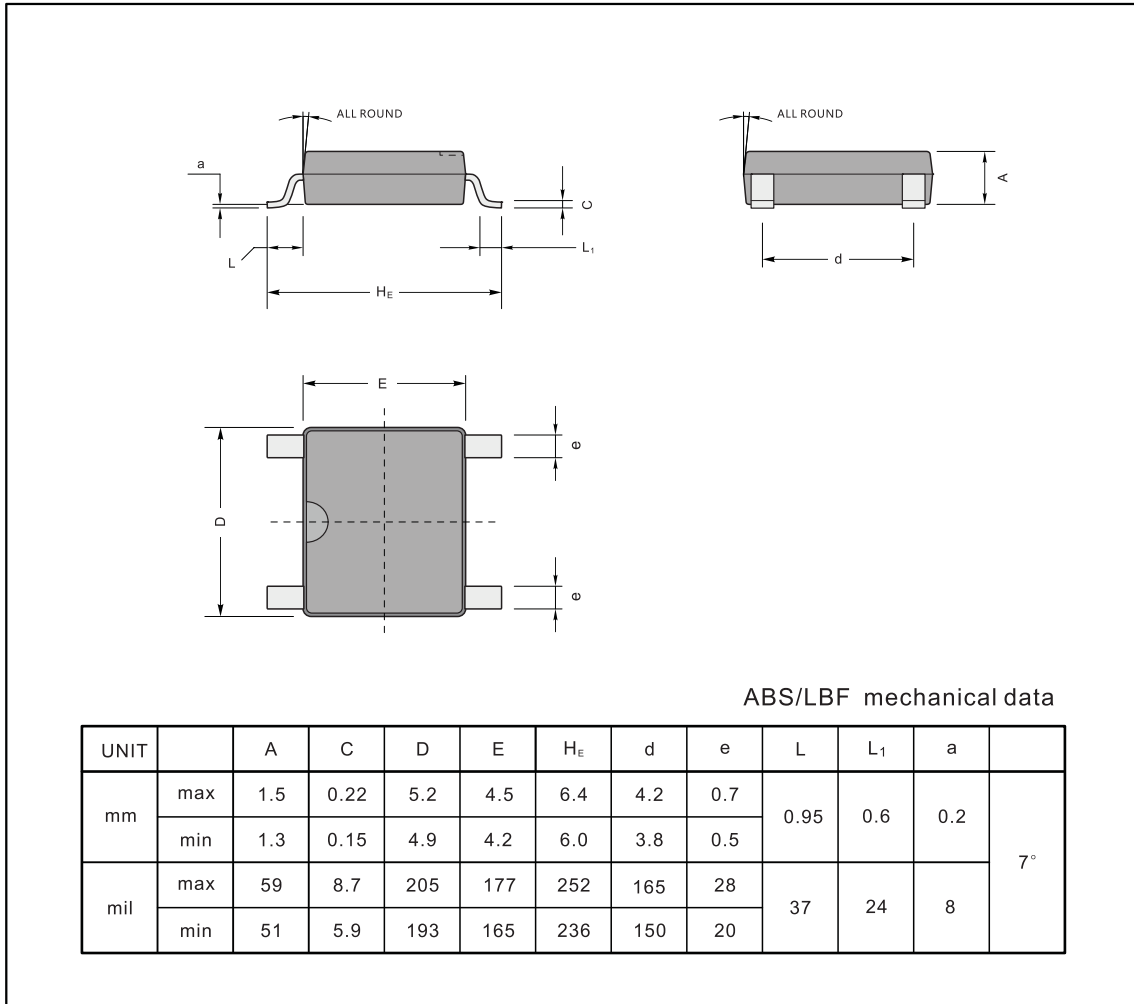
**Fig.6- Typical Transient Thermal Impedance**



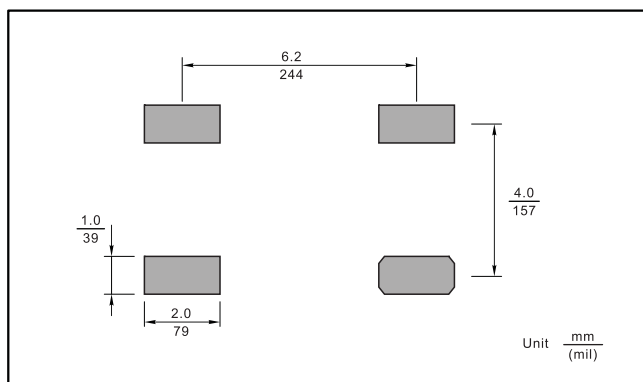
### PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

ABS/LBF



### The recommended mounting pad size



### Marking

Type number	Marking code
TB14S	TB14S
TB16S	TB16S
TB18S	TB18S
TB110S	TB110S
TB120S	TB120S

