

### 3A SURFACE MOUNT SCHOTTKY BRIDGE

**RECTIFIER Reverse Voltage - 40 to 200 V**

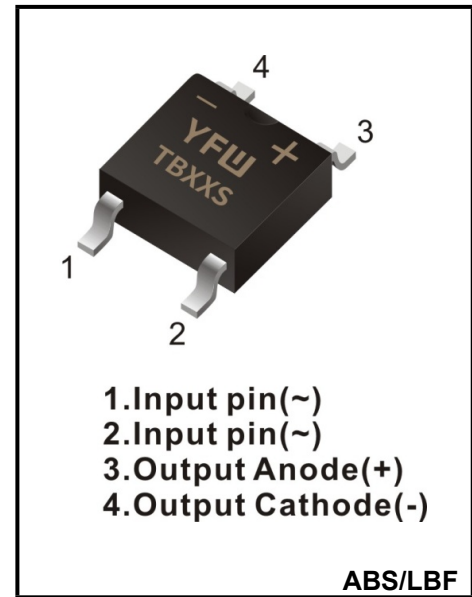
**Forward Current - 3A**

#### FEATURES

- ◆High current capability
- ◆Low forward voltage drop
- ◆Low power loss, high efficiency
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

#### 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 %.

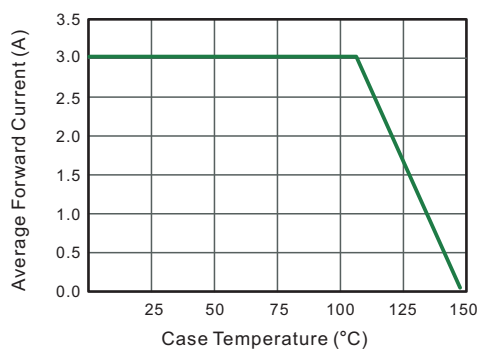
| Parameter   | Symbols         | TB34S      | TB36S    | TB38S | TB310S | TB320S | Units |
|---|-----------------|------------|----------|-------|--------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 40         | 60       | 80    | 100    | 200    | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 28         | 42       | 56    | 70     | 140    | V     |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 40         | 60       | 80    | 100    | 200    | V     |
| Average Rectified Output Current  | $I_{F(AV)}$     | 3          |          |       |        |        | A     |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)        | $I_{FSM}$       | 80         |          | 70    |        |        | A     |
| Max Instantaneous Forward Voltage at 3 A  | $V_F$           | 0.55       | 0.70     | 0.85  |        | 0.95   | V     |
| Maximum DC Reverse Current @T <sub>A</sub> =25°C<br>at Rated DC Blocking Voltage @T <sub>A</sub> =100°C | $I_R$           | 0.5<br>10  | 0.3<br>5 |       |        |        | μA    |
| Typical Junction Capacitance (Note1)  | $C_j$           | 250        | 160      |       |        |        | pF    |
| Typical Thermal Resistance (Note2)  | $R_{\theta JA}$ | 60         |          |       |        |        | °C/W  |
| Operating and Storage Temperature Range   | $T_j$           | -55 ~ +150 |          |       |        |        | °C    |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +150 |          |       |        |        | °C    |

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

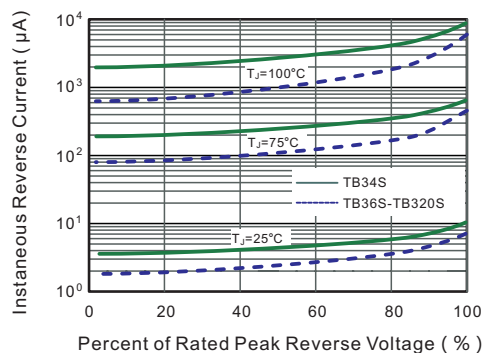
(2) Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

**Ratings And Characteristic Curves**

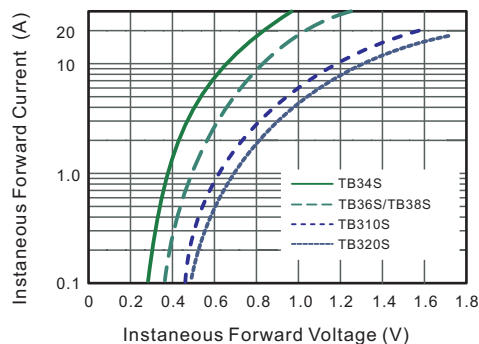
**Fig.1 Forward Current Derating Curve**



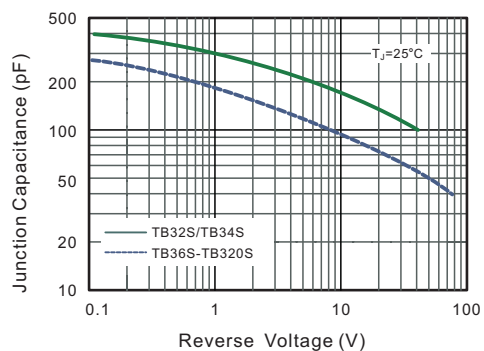
**Fig.2 Typical Reverse Characteristics**



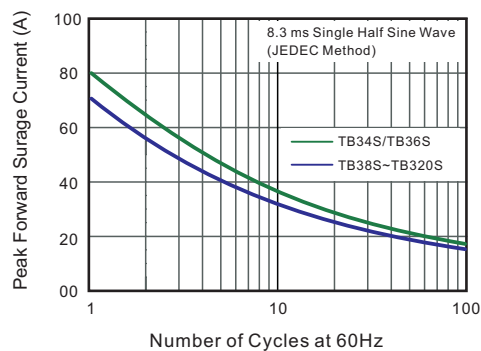
**Fig.3 Typical Forward Characteristic**



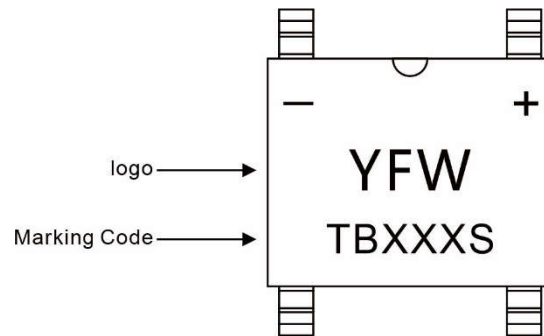
**Fig.4 Typical Junction Capacitance**



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



## Marking Diagram



## Ordering information

| Package  | Packing Description | Packing Quantity             |
|----------|---------------------|------------------------------|
| ABS(LBF) | Tape/Reel, 13" reel | 5000PCS/Reel 50000PCS/Carton |

## Package Dimensions

### ABS(LBF)

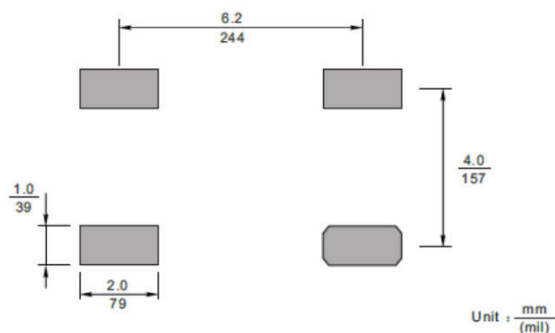
Top view of a rectangular component. Dimensions shown: L (left side), L<sub>1</sub> (right side), H<sub>E</sub> (bottom side). A fillet radius R is indicated at the corners. The text "ALL ROUND" is written above the component.

Side view of a rectangular component. Dimensions shown: d (bottom side), A (right side). A fillet radius R is indicated at the corners. The text "ALL ROUND" is written above the component.

Front view of a rectangular component. Dimensions shown: E (top side), D (left side), e (right side). A fillet radius R is indicated at the corners. The text "ALL ROUND" is written above the component.

| Dim. | Millimeter(mm) |      | (mil) |      |
|------|----------------|------|-------|------|
|      | Min.           | Max. | Min.  | Max. |
| A    | 1.3            | 1.5  | 51    | 59   |
| C    | 0.15           | 0.22 | 5.9   | 8.7  |
| D    | 4.9            | 5.2  | 193   | 205  |
| E    | 4.2            | 4.5  | 166   | 177  |
| HE   | 6.0            | 6.4  | 236   | 252  |
| d    | 3.8            | 4.2  | 150   | 165  |
| e    | 0.5            | 0.7  | 20    | 28   |
| L    | 0.95           |      | 37    |      |
| L1   | 0.6            |      | 24    |      |
| a    | 0.2            |      | 8     |      |
| ∠    | 7°             |      |       |      |

### The recommended mounting pad size



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