

# TB1S-15~TB10S-15

Rev.C Feb.-2015

## 描述 / Descriptions

1.5A 表面贴装玻璃钝化整流桥，薄型 ABS/LBF 封装。

1.5A Surface Mount Glass Passivated Bridge Rectifier, ABS/LBF thin package.

## 特征 / Features

玻璃钝化芯片，反向电压：100V~1000V，正向电流：1.5A，浪涌电流大，适用表面贴装。无卤产品。

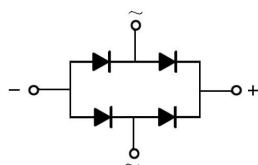
Glass Passivated Chip Junction, Reverse Voltage :100 to 1000V, Forward Current: 1.5A, High Surge Current Capability, Designed for Surface Mount Application. Halogen free product.

## 用途 / Applications

一般用途.

General purpose.

## 内部等效电路 / Equivalent Circuit

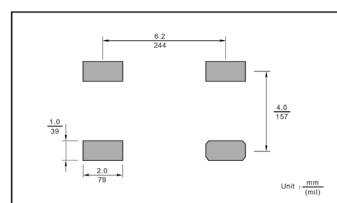


## 引脚排列 / Pinning



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

The recommended mounting pad size



## 印章代码 / Marking

见印章说明。See Marking Instructions.

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

| 参数<br>Parameter   | 符号<br>Symbol    | 数值<br>Rating     |         |         |         |         |          | 单位<br>Unit |
|---|-----------------|------------------|---------|---------|---------|---------|----------|------------|
|   |                 | TB1S-15          | TB2S-15 | TB4S-15 | TB6S-15 | TB8S-15 | TB10S-15 |            |
| 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          |
| Average Rectified Output Current at Ta = 50°C   | $I_o$           | 1.5              |         |         |         |         |          | A          |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$       | 50 (Typical:55A) |         |         |         |         |          | A          |
| Typical Junction Capacitance (Note1)  | $C_j$           | 25               |         |         |         |         |          | pF         |
| Typical Thermal Resistance (Note2)  | $R_{\theta JA}$ | 70               |         |         |         |         |          | °C/W       |
|   | $R_{\theta JL}$ | 16               |         |         |         |         |          | °C/W       |
| Junction Temperature, Storage Temperature Range   | $T_j, T_{stg}$  | -55~150          |         |         |         |         |          | °C         |

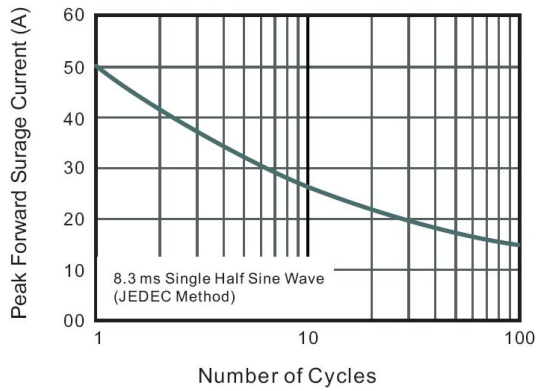
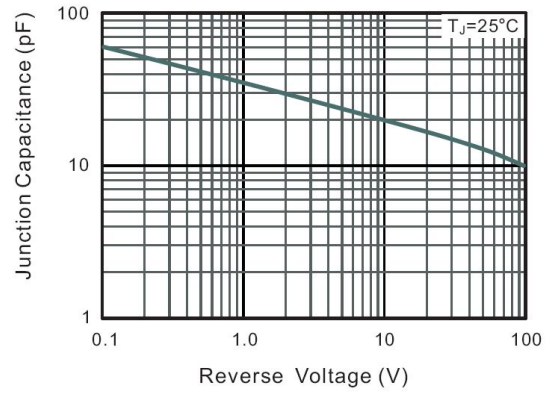
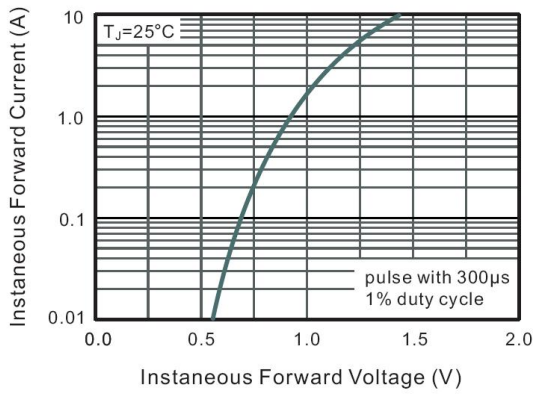
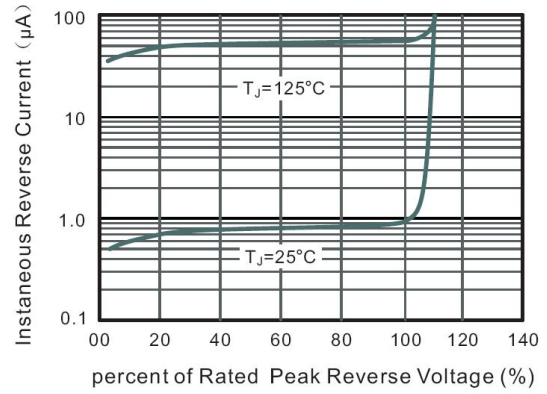
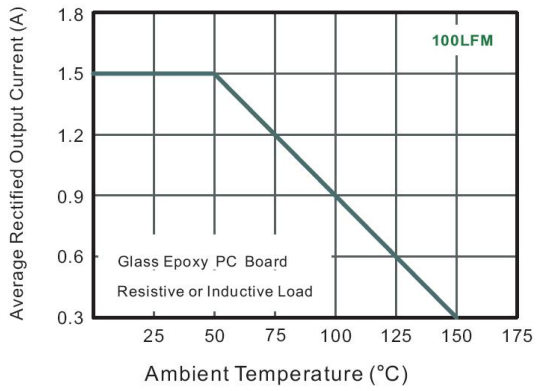
Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with 4×2.54mm<sup>2</sup> copper pad..

**电性能参数 / Electrical Characteristics(Ta=25°C)**

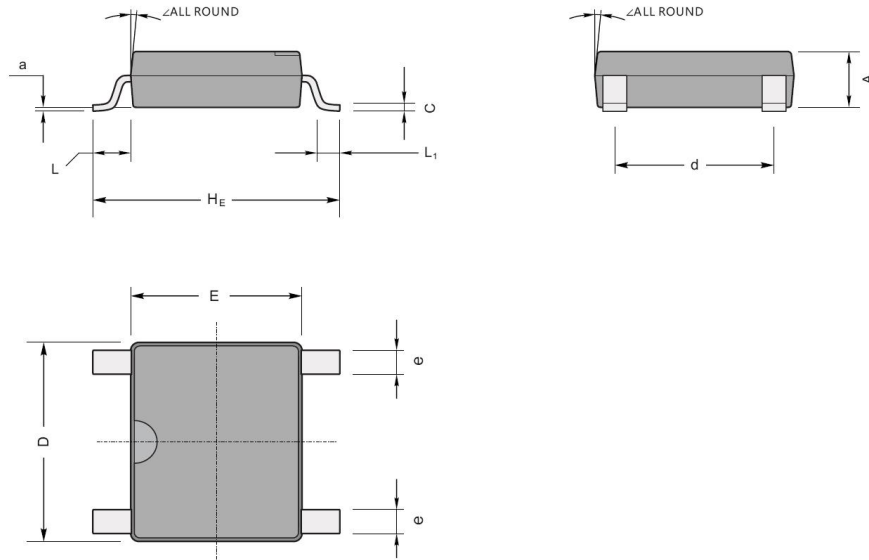
| 参数<br>Parameter   | 符号<br>Symbol | 测试条件<br>Test Conditions | 数值<br>Rating | 单位<br>Unit |
|---|--------------|-------------------------|--------------|------------|
| Forward Voltage per element                               | $V_F$        | $I_F=1.5A$              | 1.1          | V          |
| Maximum DC Reverse Current at Maximum DC Blocking Voltage | $I_R$        | $T_a=25^\circ C$        | 5.0          | μA         |
|   |              | $T_a=125^\circ C$       | 100          | μA         |

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

ABS/LBF

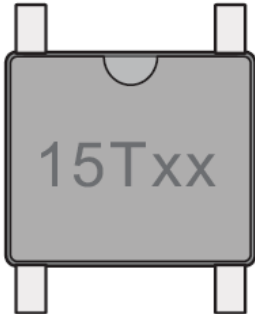


ABS/LBF mechanical data

| UNIT |     | A   | C    | D   | E   | HE  | d   | e   | L    | L <sub>1</sub> | 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             | 4   |    |
|      | min | 51  | 5.9  | 193 | 166 | 236 | 150 | 20  |      |                |     |    |

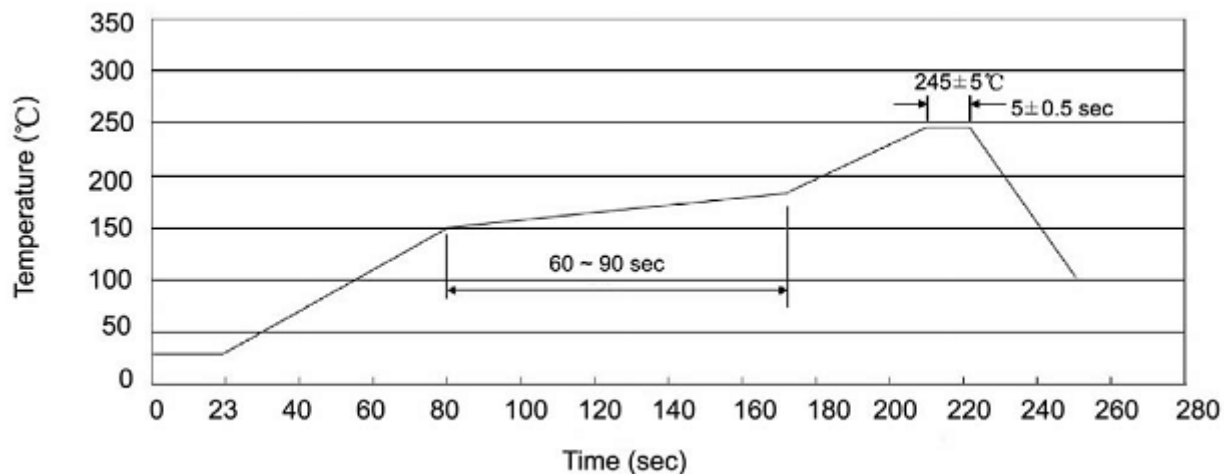
## Marking

| Type number | Marking code |
|-------------|--------------|
| TB1S-15     | 15T1         |
| TB2S-15     | 15T2         |
| TB4S-15     | 15T4         |
| TB6S-15     | 15T6         |
| TB8S-15     | 15T8         |
| TB10S-15    | 15T10        |

The diagram shows a rectangular component with four pins. The marking code '15Txx' is printed in the center of the component's top surface.

**回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)**



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

**耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions**

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

**包装规格 / Packaging SPEC.**

卷盘包装 / REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| ABS/LBF              | 5000               | 2                       | 10000                  | 5                            | 50000                  | 13" ×15                                 | 336X336X40  | 345X345X235 |

**使用说明 / Notices**