

## 描述 / Descriptions

SOT23-6 塑封封装低电容 TVS 二极管。  
Low Capacitance TVS Array in a SOT23-6 Plastic Package.

## 特征 / Features

4 路 ESD 保护结构；低电容的高速接口；I/O 通道之间的电容不大于 0.35pF；低钳位电压；低工作电压；适应高速数据传输线。无卤产品。

4 ESD protection structures, low capacitance for high-speed interfaces, Capacitance I / O channel is not more than 0.35pF, Low clamping voltage, Low operating voltage, suitable for high speed data transmission lines. HF Product.

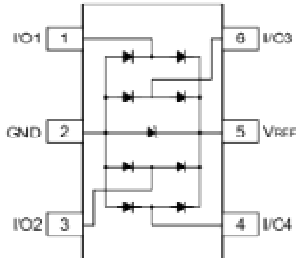
## 用途 / Applications

用于高速数据线 ESD 保护，如 USB 2.0、机顶盒、显示器等。按 IEC 61000-4-2(ESD)标准：±17KV (空气放电)，±12KV (接触放电)。

ESD protection for high-speed data lines, such as USB 2.0, set-top boxes, monitors and so on.

According to IEC 61000-4-2 (ESD) Standard: ± 17KV (air discharge), ± 12KV (contact discharge).

## 内部等效电路 / Equivalent Circuit



## 引脚排列 / Pinning



## 印章代码 / Marking

见印章说明。 See Marking Instructions.

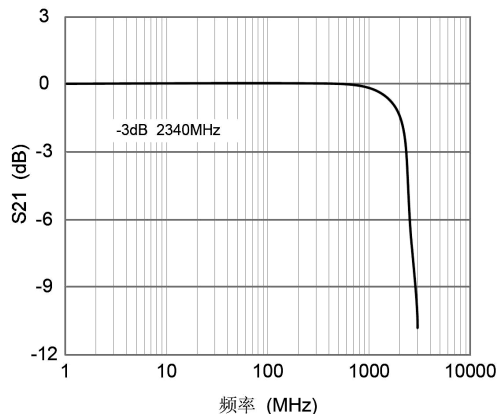
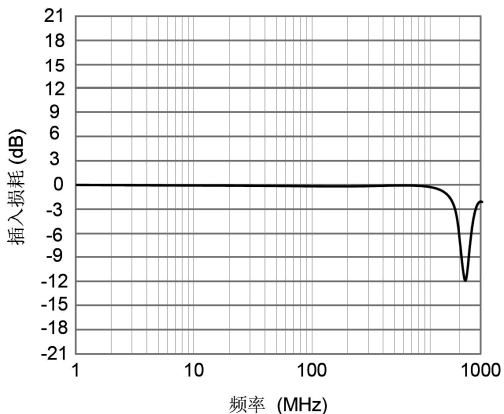
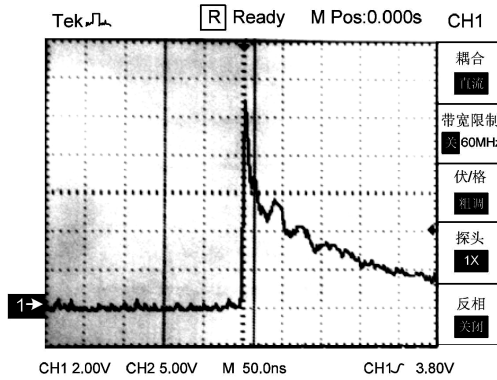
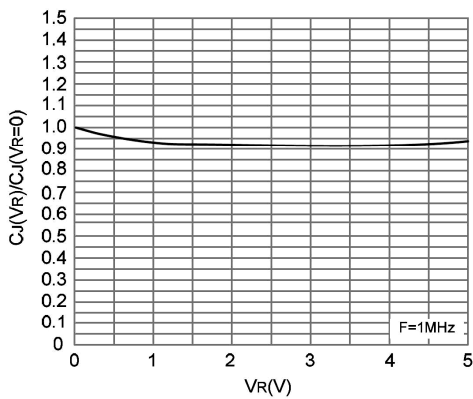
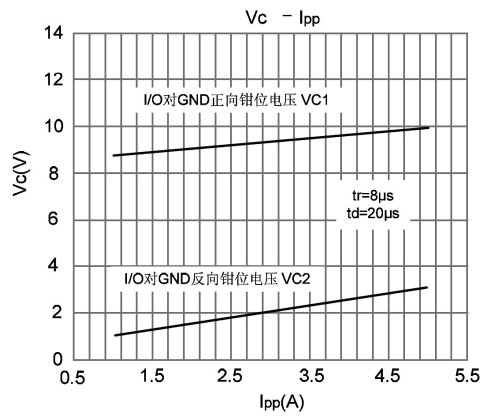
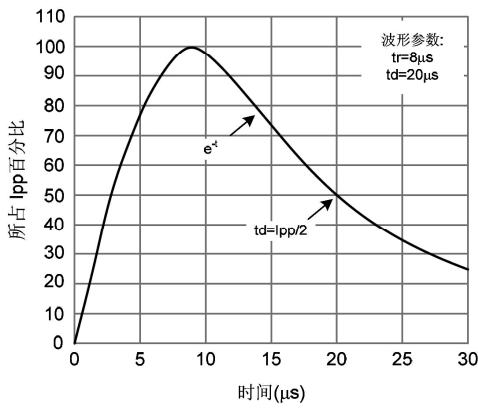
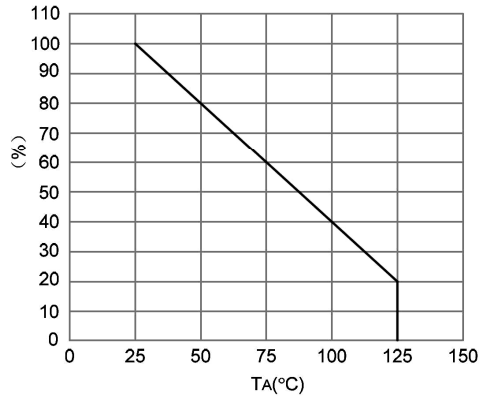
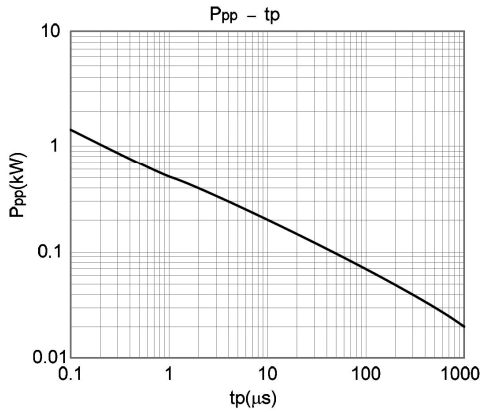
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

| 参数<br>Parameter                  | 符号<br>Symbol      | 数值<br>Rating | 单位<br>Unit |
|----------------------------------|-------------------|--------------|------------|
| Peak Pulse Power (tp = 8/20μs)   | P <sub>PP</sub>   | 150          | W          |
| Peak Pulse Current (tp = 8/20μs) | I <sub>PP</sub>   | 5.0          | A          |
| ESD per IEC 61000-4-2 (Air)      | V <sub>ESD1</sub> | ±17          | kV         |
| ESD per IEC 61000-4-2 (Contact)  | V <sub>ESD2</sub> | ±12          | kV         |
| Operating Temperature            | T <sub>OPR</sub>  | -55 to +125  | °C         |
| Storage Temperature              | T <sub>STG</sub>  | -55 to +150  | °C         |

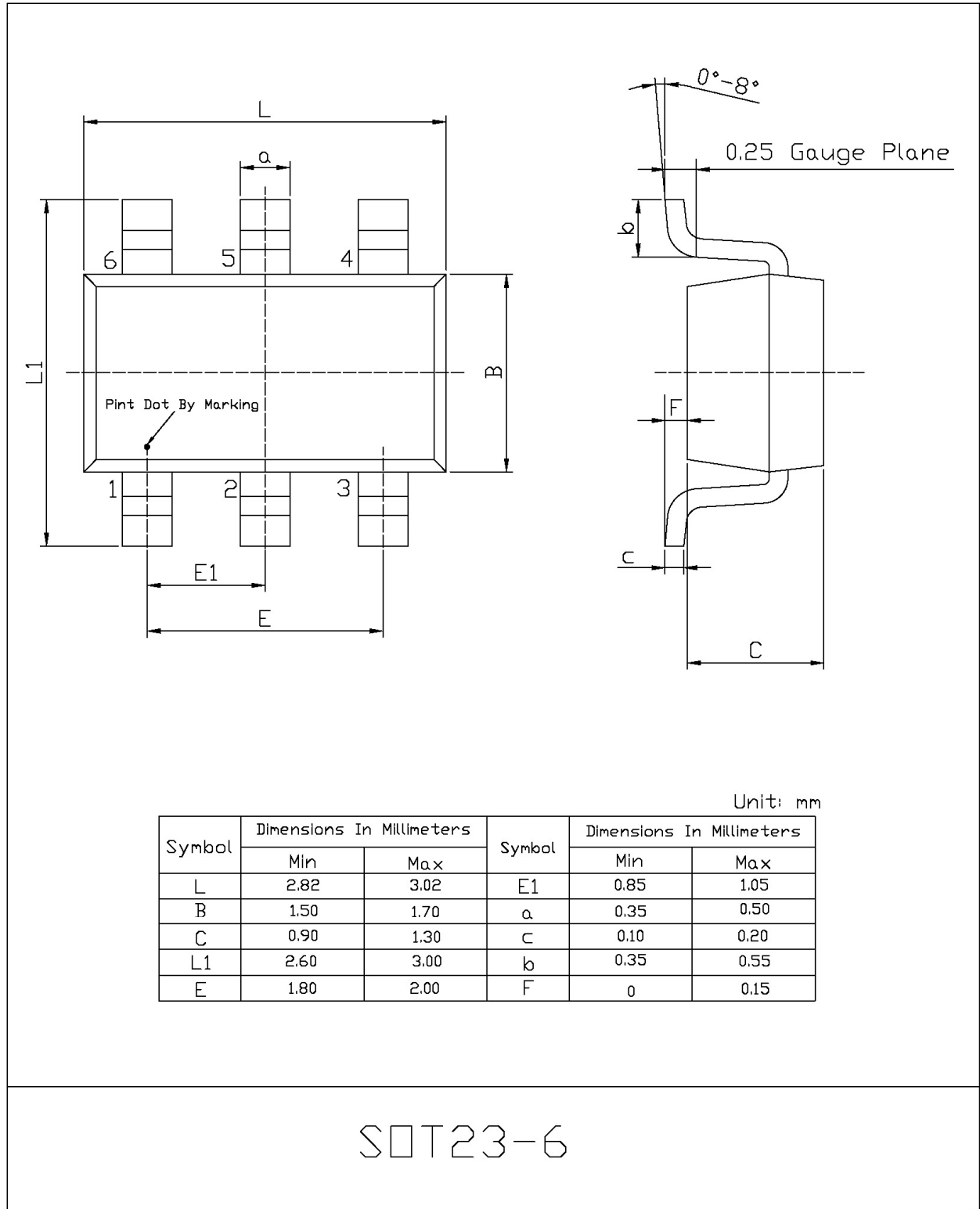
**电性能参数 / Electrical Characteristics(Ta=25°C)**

| 参数<br>Parameter                 | 符号<br>Symbol     | 测试条件<br>Test Conditions                      | 最小值<br>Min | 典型值<br>Typ | 最大值<br>Max | 单位<br>Unit |
|---------------------------------|------------------|--|------------|------------|------------|------------|
| Reverse Stand-Off Voltage       | V <sub>RWM</sub> | I <sub>t</sub> =1mA                          |            |            | 5.0        | V          |
| Reverse Breakdown Voltage       | V <sub>BR</sub>  | I <sub>t</sub> =1mA                          | 6.0        |            |            | V          |
| Reverse Leakage Current         | I <sub>R</sub>   | V <sub>RWM</sub> =5V T=25°C                  |            |            | 1.0        | μA         |
| Clamping Voltage                | V <sub>C1</sub>  | I <sub>PP</sub> =1.0A t <sub>p</sub> =8/20μS |            | 8.5        | 12         | V          |
|                                 | V <sub>C2</sub>  |  |            | 1.8        |            | V          |
| Capacitance. Any I/O pin to I/O | C <sub>J1</sub>  | V <sub>R</sub> =0V f=1MHz                    |            | 0.35       | 0.45       | pF         |
| Capacitance. Any I/O pin to GND | C <sub>J2</sub>  |  |            |            | 0.9        | pF         |

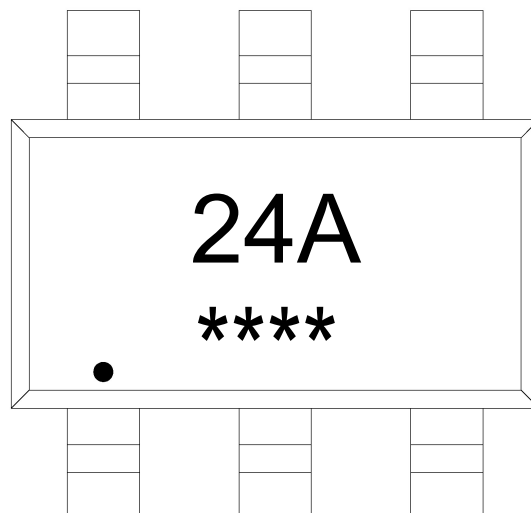
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

24A： 为型号代码

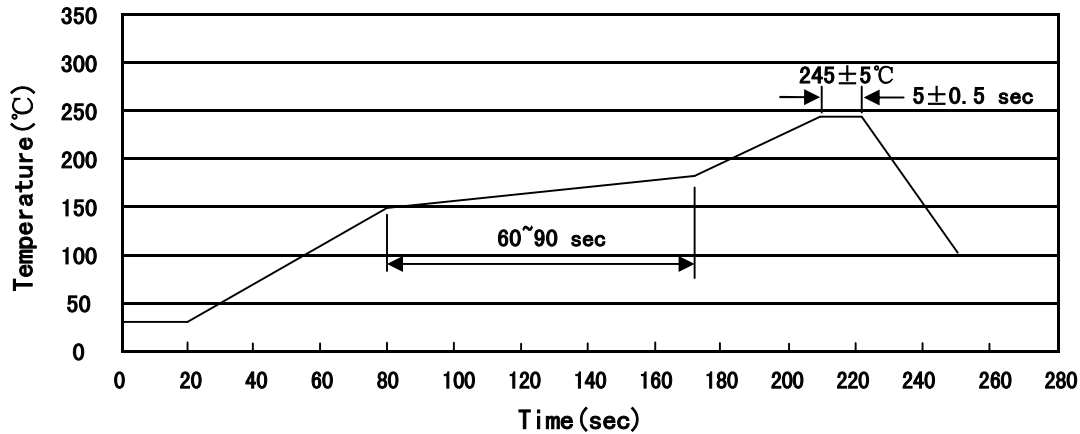
\*\*\*\*： 为生产批号代码，随生产批号变化

Note:

24A: Product Type Code

\*\*\*\*: Lot No. Code, code change with Lot No

**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 150~180°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:150~180°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 |
| SOT23-5/6            | 3,000              | 10                      | 30,000                 | 4                            | 120,000                | 7" ×8                                   | 210×205×205 | 445×230×435 |

**使用说明 / Notices**