

## SOT-23-6L ESD 静电保护二极管

### ■ Features 特点

Un-directional ESD Protection 单向静电保护

Low capacitance 低电容

### ■ Applications 应用

Notebooks 笔记本电脑

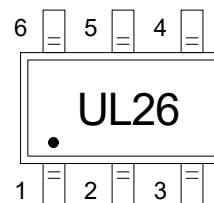
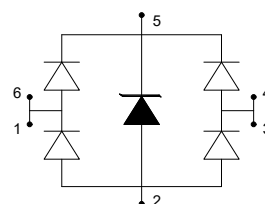
Cellular Phones 蜂窝电话

Portable Instrumentation 桌面仪器

Personal Digital Assistants 个人数码助手

### ■ Internal Schematic Diagram 内部结构

### ■ Device Marking 产品打标



### ■ Absolute Maximum Ratings 最大额定值

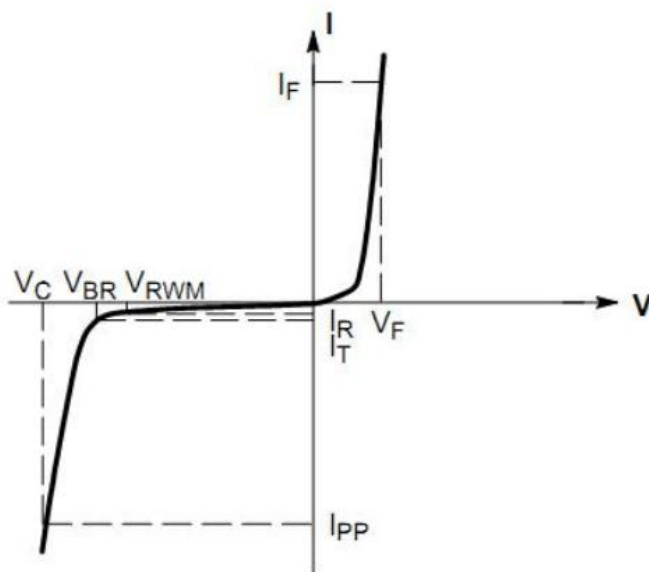
| Characteristic 特性参数                               | Symbol 符号 | Rat 额定值  | Unit 单位 |
|---------------------------------------------------|-----------|----------|---------|
| ESD (IEC61000-4-2 contact discharge)<br>@25°C接触放电 | $V_{ESD}$ | $\pm 12$ | KV      |
| ESD (IEC61000-4-2 air discharge)<br>@25°C空气放电     | $V_{ESD}$ | $\pm 17$ | KV      |
| Peak Pulse Power @25°C峰值脉冲功率                      | $P_{PK}$  | 75       | W       |
| Peak Pulse Current @25°C峰值脉冲电流                    | $I_{PP}$  | 4.5      | A       |
| Lead Temperature 管脚温度                             | $T_L$     | 260      | °C      |
| Lead Solder Time 管脚焊接时间                           | $T_L$     | 10       | S       |
| Operating Temperature 工作温度                        | $T_{op}$  | -40~85   | °C      |
| Junction Temperature 结温                           | $T_J$     | -55~125  | °C      |
| Storage Temperature 储存温度                          | $T_{stg}$ | -55~150  | °C      |

## ■ Electrical Characteristics 电特性

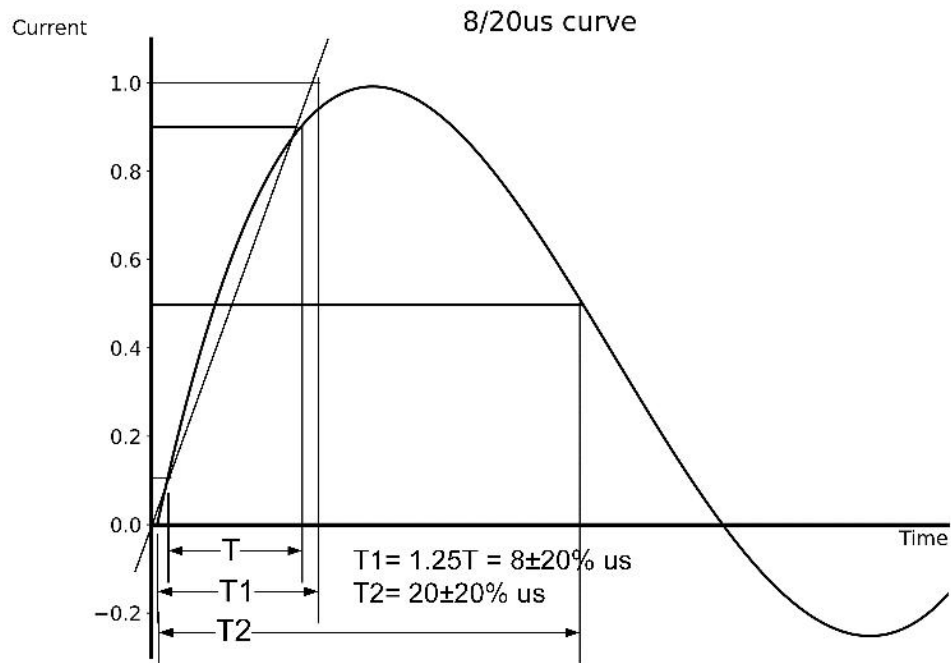
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| Characteristic Parameters<br>特性参数   | Symbol<br>符号     | Min<br>最小值 | Typ<br>典型值 | Max<br>最大值 | Unit<br>单位    | Condition<br>条件                                                 |
|-------------------------------------|------------------|------------|------------|------------|---------------|-----------------------------------------------------------------|
| Reverse Stand-off Voltage<br>反向工作电压 | $V_{\text{RWM}}$ |            |            | 5          | V             |                                                                 |
| Reverse Breakdown Voltage<br>反向击穿电压 | $V_{\text{BR}}$  | 6          |            |            | V             | $I_{\text{T}}=1\text{mA}$                                       |
| Reverse Leakage Current<br>反向漏电流    | $I_{\text{R}}$   |            |            | 1          | $\mu\text{A}$ | $V_{\text{RWM}}=5\text{V}$                                      |
| Clamping Voltage<br>钳位电压            | $V_{\text{C}}$   |            | 10         |            | V             | $I_{\text{PP}}=1\text{A}$ ,<br>$t_{\text{p}}=8/20\mu\text{s}$   |
| Clamping Voltage<br>钳位电压            | $V_{\text{C}}$   |            | 15         |            | V             | $I_{\text{PP}}=4.5\text{A}$ ,<br>$t_{\text{p}}=8/20\mu\text{s}$ |
| Diode Capacitance<br>二极管电容          | $C_{\text{D}}$   |            | 0.8        |            | pF            | $V_{\text{R}}=0\text{V}$ ,<br>$f=1\text{MHz}$                   |

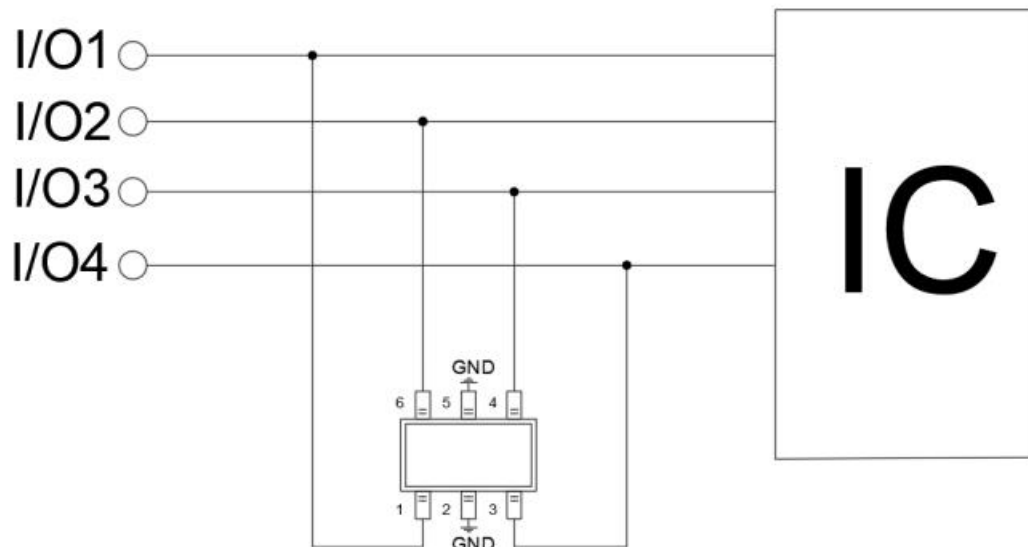
|                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| $V_{\text{RWM}}$   | Reverse Working Voltage<br>反向工作电压                                   |
| $V_{\text{R(BR)}}$ | Reverse Breakdown Voltage<br>反向击穿电压@ $I_{\text{T}}=1\text{mA}$      |
| $I_{\text{T}}$     | Test Current<br>测试电流                                                |
| $I_{\text{R}}$     | Reverse Leakage Current<br>反向漏电流@ $V_{\text{RWM}}$                  |
| $V_{\text{C}}$     | Clamping Voltage<br>钳位电压                                            |
| $I_{\text{PP}}$    | Reverse Peak Pulse Current<br>浪涌电流                                  |
| $C_{\text{D}}$     | Diode Capacitance 电容<br>$V_{\text{IO}}=0\text{V}$ , $f=1\text{MHz}$ |



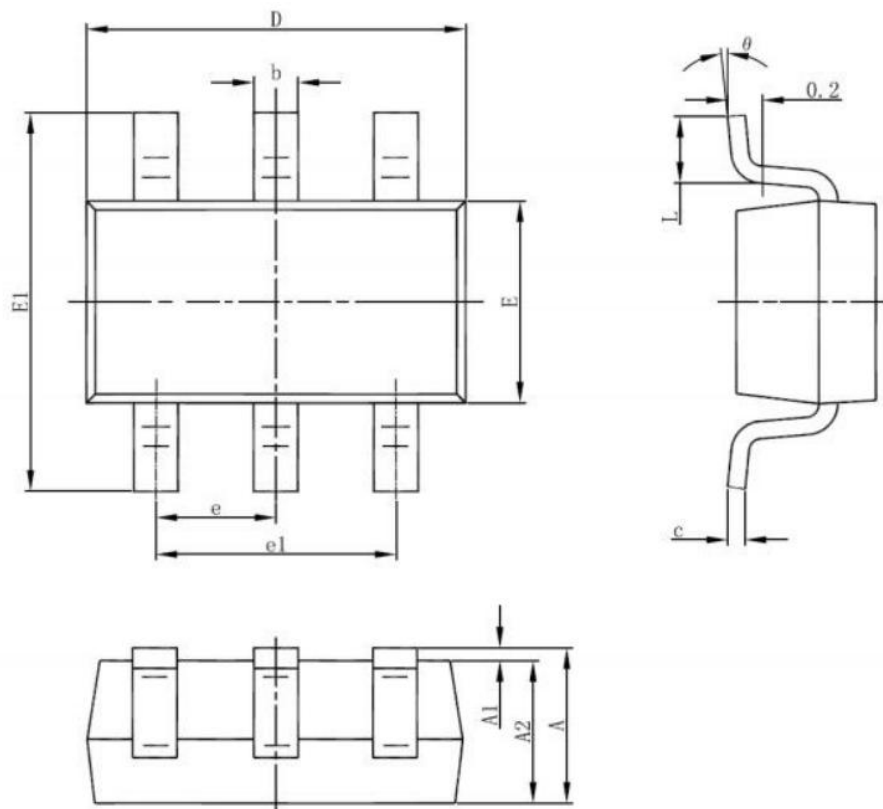
## ■ Typical Characteristic Curve 典型特性曲线



## ■ Typical Application 典型应用



■ Dimension 外形封装尺寸



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 1.050                     | 1.250 | 0.041                | 0.049 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 1.050                     | 1.150 | 0.041                | 0.045 |
| b      | 0.300                     | 0.500 | 0.012                | 0.020 |
| c      | 0.100                     | 0.200 | 0.004                | 0.008 |
| D      | 2.820                     | 3.020 | 0.111                | 0.119 |
| E      | 1.500                     | 1.700 | 0.059                | 0.067 |
| E1     | 2.650                     | 2.950 | 0.104                | 0.116 |
| e      | 0.900                     | 1.00  | 0.035                | 0.039 |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.300                     | 0.600 | 0.012                | 0.024 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |