

## SOT-363 ESD 静电保护二极管

### ■Features 特点

Un-directional ESD Protection 单向静电保护

### ■Applications 应用

Cellular handsets and accessories 蜂窝手机及配件

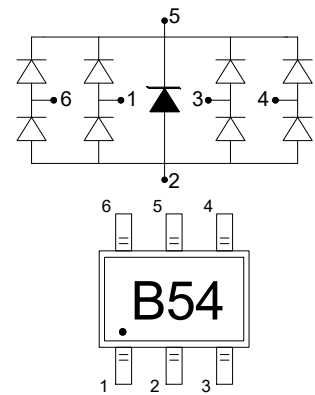
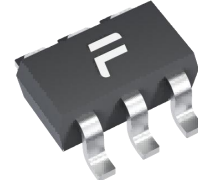
Personal Digital Assistants 个人数码助手

Notebooks & Handhelds 笔记本与手持机

Portable Instrumentation 便携仪器仪表

### ■Internal Schematic Diagram 内部结构

### ■Device Marking 产品打标



### ■Absolute Maximum Ratings 最大额定值

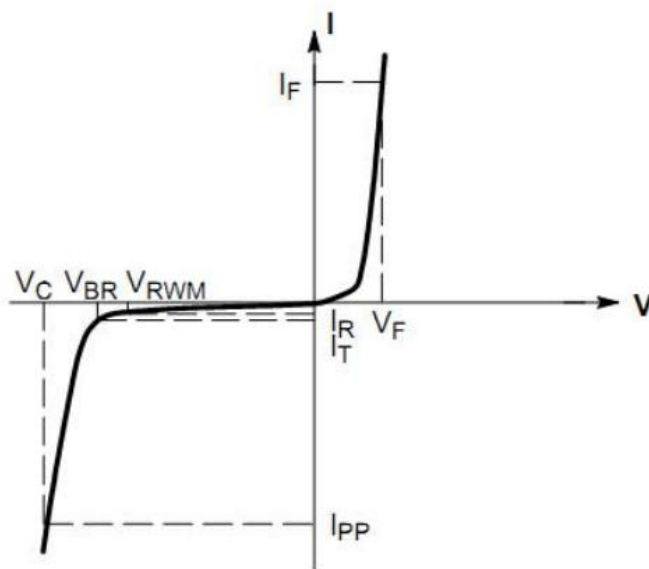
| Characteristic 特性参数                               | Symbol 符号 | Rat 额定值  | Unit 单位 |
|---------------------------------------------------|-----------|----------|---------|
| ESD (IEC61000-4-2 contact discharge)<br>@25°C接触放电 | $V_{ESD}$ | $\pm 12$ | KV      |
| ESD (IEC61000-4-2 air discharge)<br>@25°C空气放电     | $V_{ESD}$ | $\pm 17$ | KV      |
| Peak Pulse Power @25°C峰值脉冲功率                      | $P_{PK}$  | 60       | W       |
| Peak Pulse Current @25°C峰值脉冲电流                    | $I_{PP}$  | 4        | 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

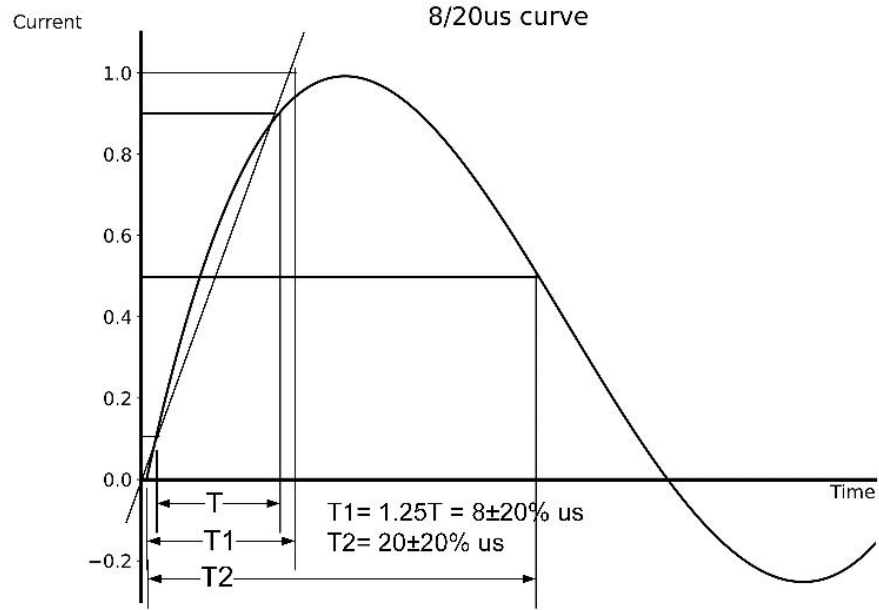
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| 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             | $I_{\text{PP}}=8\text{A}$ ,<br>$t_{\text{p}}=8/20\mu\text{s}$ |
| Diode Capacitance<br>二极管电容          | $C_{\text{D}}$   | I/O to GND<br>Between I/O | 0.8<br>0.4 |            | pF            | $V_{\text{R}}=0\text{V}$ ,<br>$f=1\text{MHz}$                 |

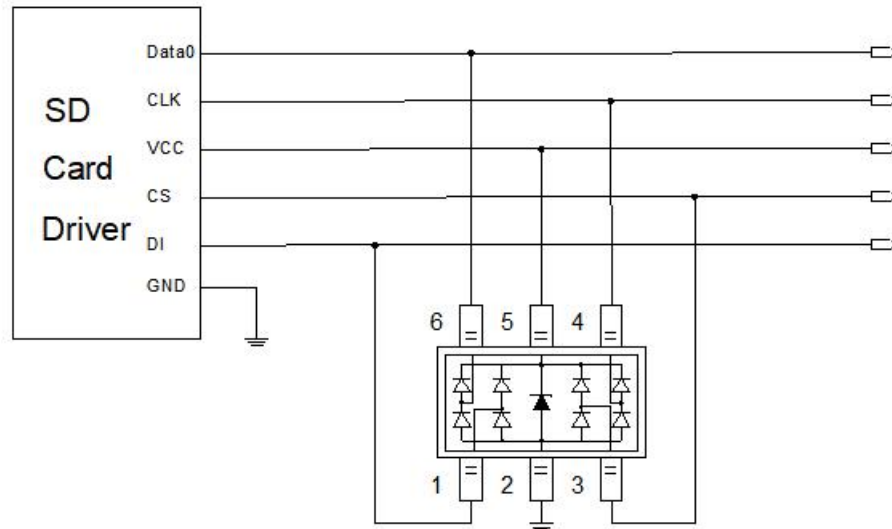
|                    |                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------|
| $V_{\text{RWM}}$   | Reverse Working Voltage<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 二极管电容<br>$V_{\text{IO}}=0\text{V}$ , $V_{\text{P-P}}=30\text{mV}$ , $f=1\text{MHz}$ |



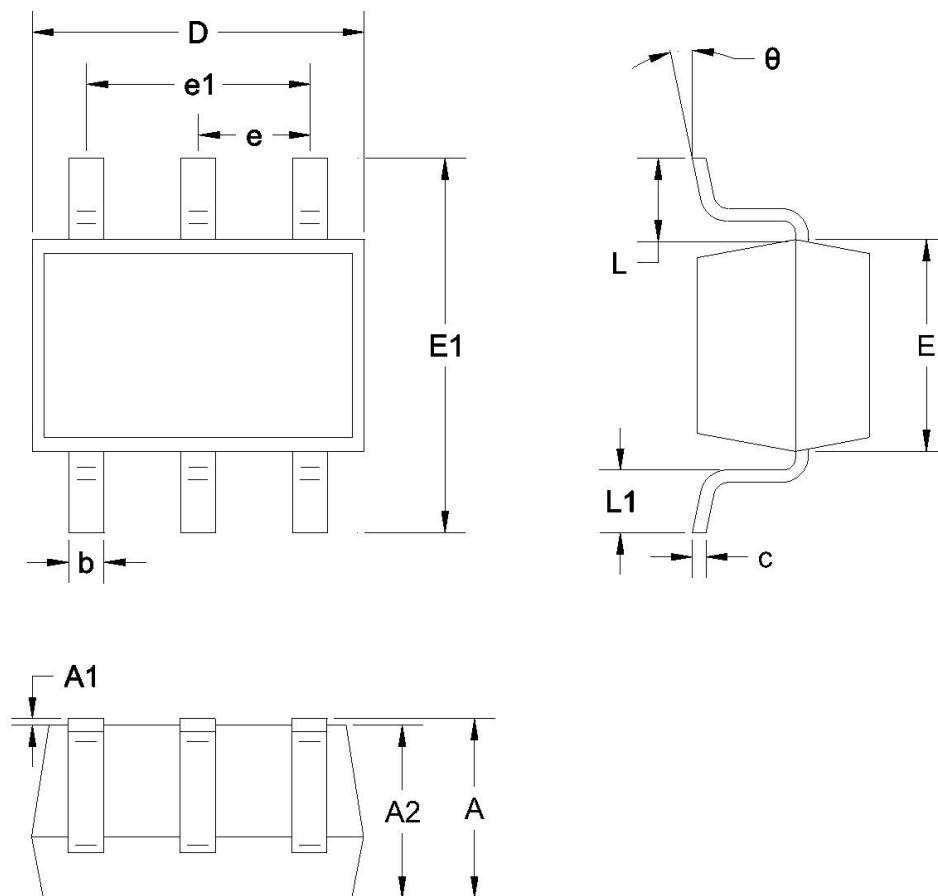
## ■ Typical Characteristic Curve 典型特性曲线



## ■ Typical Application 典型应用



■ Dimension 外形封装尺寸



| Symbol |     | A     | A1    | A2    | b     | c     | D      | $\theta$ |
|--------|-----|-------|-------|-------|-------|-------|--------|----------|
| Spec   | Min | 0.900 | 0.000 | 0.900 | 0.150 | 0.080 | 2.000  | 0°       |
|        | Max | 1.100 | 0.100 | 1.000 | 0.350 | 0.150 | 2.200  | 8°       |
| Symbol |     | E     | E1    | e     | e1    | L     | L1     | -        |
| Spec   | Min | 1.150 | 2.150 | 0.650 | 1.200 | 0.525 | 0.2600 | -        |
|        | Max | 1.350 | 2.450 | REF   | 1.400 | REF   | 0.4600 | -        |

dimensions in millimeter