

## SOD-323 ESD 静电保护二极管

### ■ Features 特点

Bidirectional 双向

ESD Protection 静电保护

### ■ Applications 应用

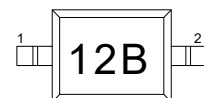
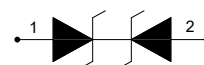
MP3 Players 播放器

Peripherals 电脑外设

Battery Protection 电池保护

Notebook and Handhelds 笔记本及手持机

Cellular handsets and accessories 蜂窝手机及配件



### ■ Device Marking 产品打标

### ■ Absolute Maximum Ratings 最大额定值

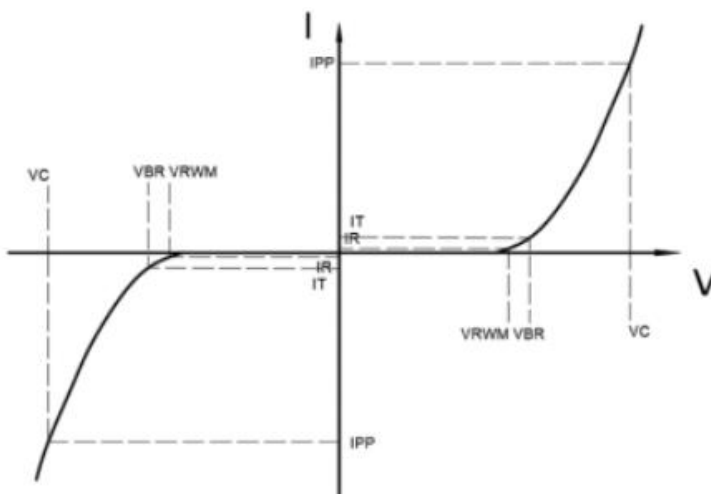
| Characteristic 特性参数                               | Symbol 符号 | Rat 额定值  | Unit 单位 |
|---------------------------------------------------|-----------|----------|---------|
| ESD (IEC61000-4-2 contact discharge)<br>@25°C接触放电 | $V_{ESD}$ | $\pm 30$ | KV      |
| ESD (IEC61000-4-2 air discharge)<br>@25°C空气放电     | $V_{ESD}$ | $\pm 30$ | KV      |
| Peak Pulse Power @25°C峰值脉冲功率                      | $P_{PK}$  | 150      | W       |
| Peak Pulse Current @25°C峰值脉冲电流                    | $I_{PP}$  | 6        | 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

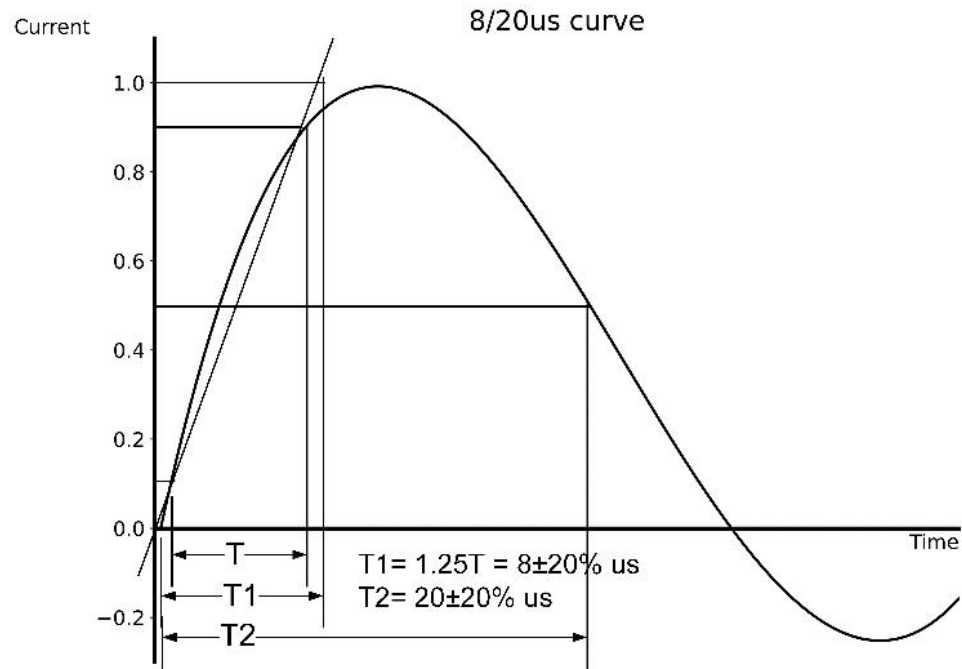
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| 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 | $V_{\text{RWM}}$ |            |            | 12         | V             |                                                         |
| Reverse Breakdown Voltage<br>反向击穿电压 | $V_{\text{BR}}$  | 13.3       |            |            | V             | $I_{\text{T}}=1\text{mA}$                               |
| Reverse Leakage Current<br>反向漏电流    | $I_{\text{R}}$   |            |            | 1          | $\mu\text{A}$ | $V_{\text{RWM}}=12\text{V}$                             |
| Clamping Voltage<br>钳位电压            | $V_{\text{C}}$   |            | 16         |            | V             | $I_{\text{PP}}=1\text{A}, t_{\text{p}}=8/20\mu\text{s}$ |
| Clamping Voltage<br>钳位电压            | $V_{\text{C}}$   |            | 25         |            | V             | $I_{\text{PP}}=6\text{A}, t_{\text{p}}=8/20\mu\text{s}$ |
| Diode Capacitance<br>二极管电容          | $C_{\text{D}}$   |            | 8          |            | pF            | $V_{\text{R}}=0\text{V}, f=1\text{MHz}$                 |

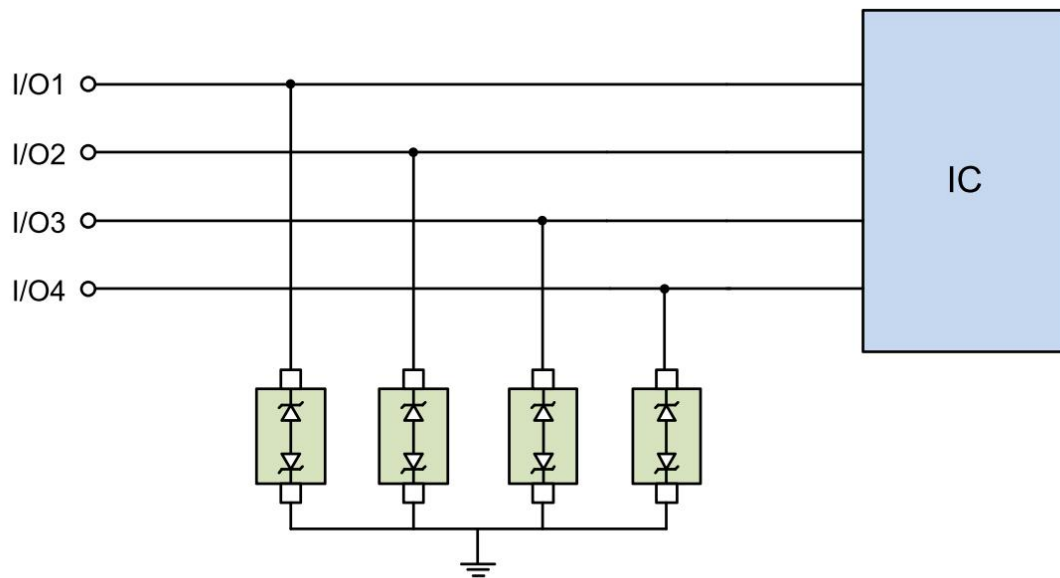
|                    |                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------|
| $V_{\text{RWM}}$   | Reverse Working Voltage<br>反向工作电压                                                                |
| $V_{\text{R(BR)}}$ | 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                                                               |
| $C_{\text{J}}$     | Junction Capacitance 结电容<br>$V_{\text{IO}}=0\text{V}, V_{\text{P-P}}=30\text{mV}, f=1\text{MHz}$ |



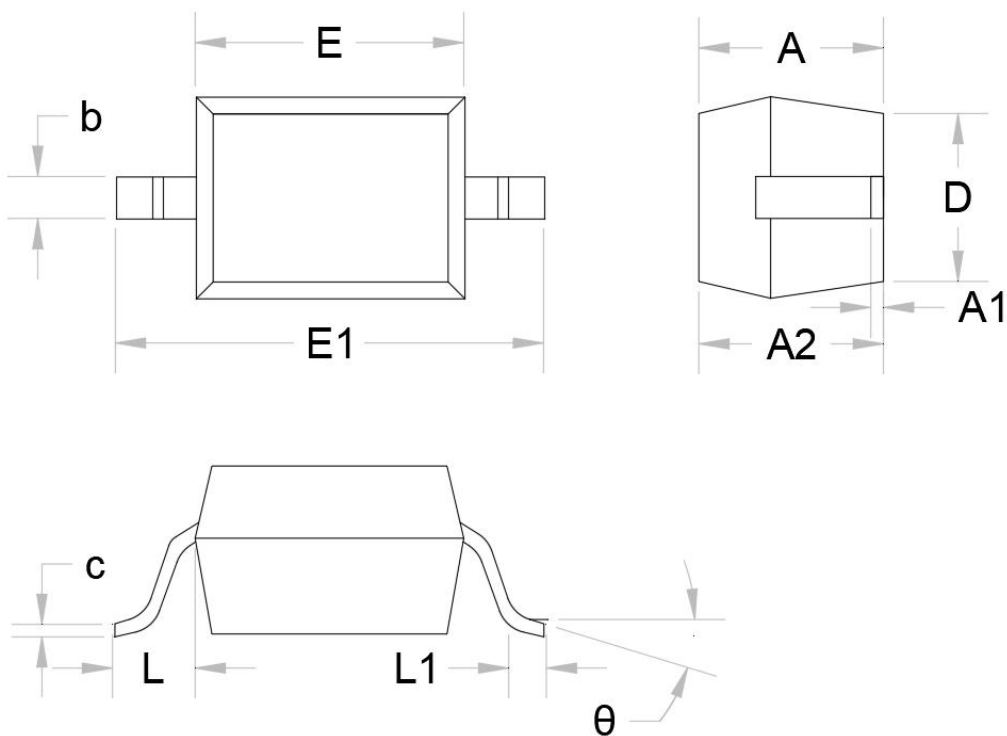
## ■ Typical Characteristic Curve 典型特性曲线



## ■ Typical Application 典型应用



■ **Dimension 外形封装尺寸**



| Symbol   | Dimensions in Millimeters |       | Dimensions in Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min.                      | Max.  | Min.                 | Max.  |
| A        |                           | 1.000 |                      | 0.039 |
| A1       | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2       | 0.800                     | 0.900 | 0.031                | 0.035 |
| b        | 0.250                     | 0.350 | 0.010                | 0.014 |
| C        | 0.080                     | 0.150 | 0.003                | 0.006 |
| D        | 1.200                     | 1.400 | 0.047                | 0.055 |
| E        | 1.600                     | 1.800 | 0.063                | 0.071 |
| E1       | 2.550                     | 2.750 | 0.100                | 0.108 |
| L        | 0.475REF                  |       | 0.019REF             |       |
| L1       | 0.250                     | 0.400 | 0.010                | 0.016 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |