

## SOD-323 ESD 静电保护二极管

### ■Features 特点

Bidirectional 双向

Low Capacitance 低电容

### ■Applications 应用

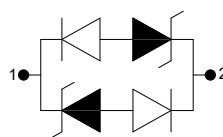
I/O Interfaces 输入输出接口

Industrial and Serve Robots 工业和服务机器人

Laptops and Desktops 便携和台式电脑

TV and Monitors 电视和监视器

Wearables 可穿戴电子产品



### ■Device Marking 产品打标

3B/LC

### ■Absolute Maximum Ratings 最大额定值

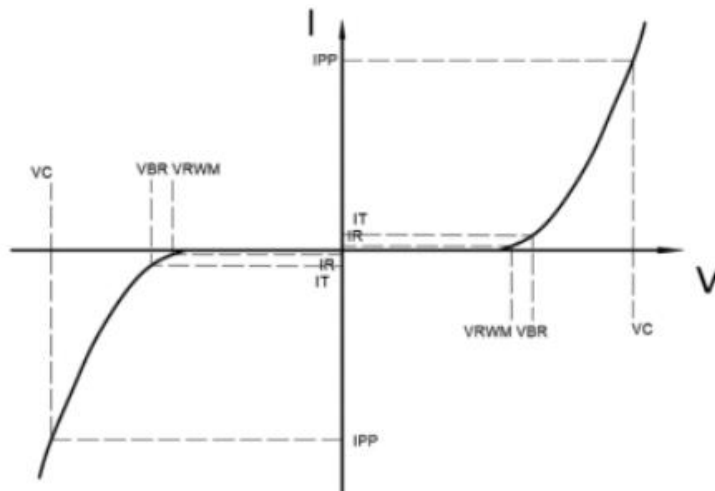
| Characteristic 特性参数                               | Symbol 符号 | Rat 额定值  | Unit 单位 |
|---------------------------------------------------|-----------|----------|---------|
| ESD (IEC61000-4-2 contact discharge)<br>@25°C接触放电 | $V_{ESD}$ | $\pm 30$ | KV      |
| ESD (IEC61000-4-2 air discharge)<br>@25°C空气放电     | $V_{ESD}$ | $\pm 30$ | KV      |
| Peak Pulse Power @25°C峰值脉冲功率                      | $P_{PK}$  | 350      | W       |
| Peak Pulse Current @25°C峰值脉冲电流                    | $I_{PP}$  | 20       | 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

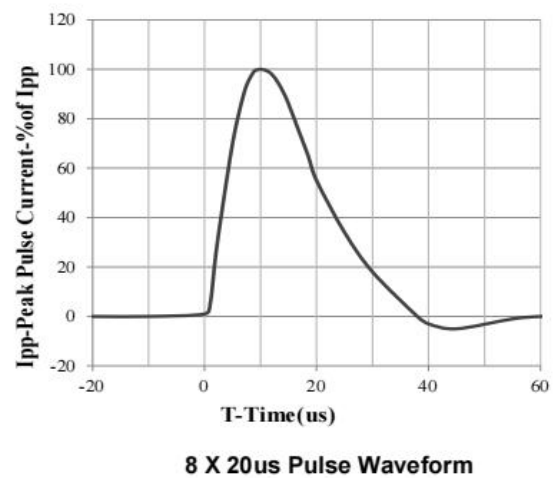
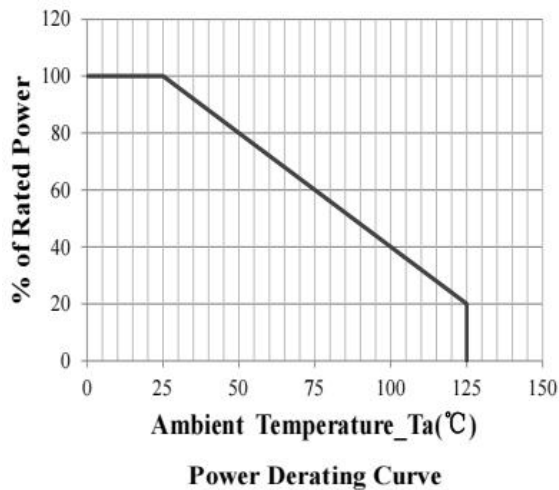
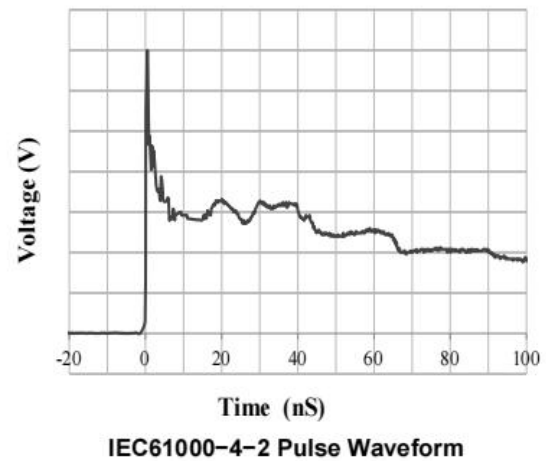
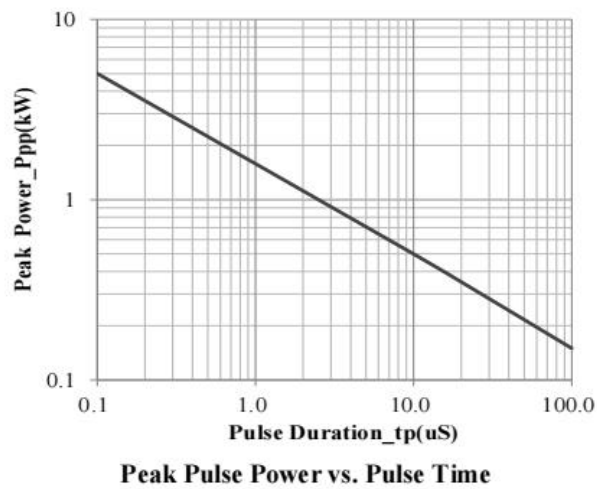
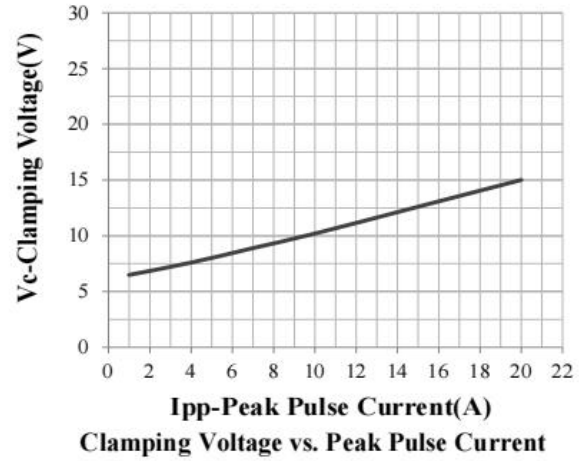
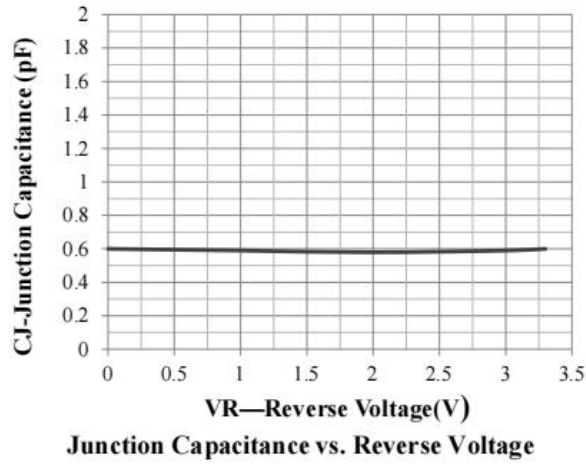
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| 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 | $V_{\text{RWM}}$   |            |            | 3.3        | V             |                                                          |
| Reverse Breakdown Voltage<br>反向击穿电压 | $V_{\text{R(BR)}}$ | 4          | 5          | 6          | V             | $I_{\text{T}}=1\text{mA}$                                |
| Reverse Leakage Current<br>反向漏电流    | $I_{\text{R}}$     |            |            | 0.2        | $\mu\text{A}$ | $V_{\text{RWM}}=3.3\text{V}$                             |
| Clamping Voltage<br>钳位电压            | $V_{\text{C}}$     |            | 7          | 9          | V             | $I_{\text{PP}}=1\text{A}, t_{\text{p}}=8/20\mu\text{s}$  |
| Clamping Voltage<br>钳位电压            | $V_{\text{C}}$     |            | 16         | 20         | V             | $I_{\text{PP}}=20\text{A}, t_{\text{p}}=8/20\mu\text{s}$ |
| Diode Capacitance<br>二极管电容          | $C_{\text{D}}$     |            | 1          |            | pF            | $V_{\text{R}}=0\text{V}, f=1\text{MHz}$                  |

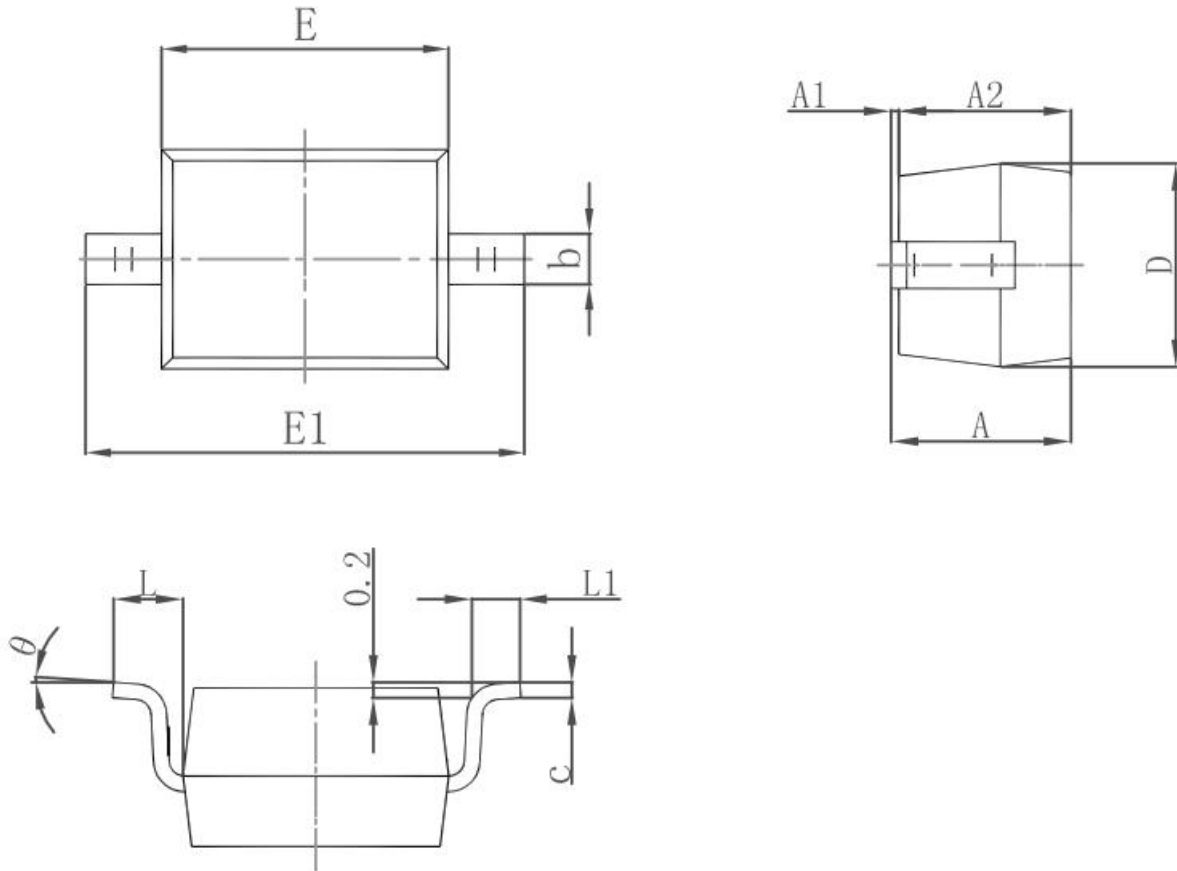
|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| $V_{\text{RWM}}$   | Reverse Working Voltage<br>反向工作电压                                                               |
| $V_{\text{R(BR)}}$ | 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                                                              |
| $C_{\text{D}}$     | Diode Capacitance 二极管电容<br>$V_{\text{I0}}=0\text{V}, V_{\text{P-P}}=30\text{mV}, f=1\text{MHz}$ |



■ Typical Characteristic Curve 典型特性曲线



■ 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      | 0.475 REF.                |       | 0.019 REF.           |       |
| L1     | 0.250                     | 0.400 | 0.010                | 0.016 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |