



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

Set-top box 机顶盒

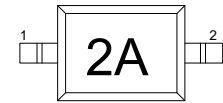
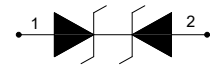
Communications systems 通信系统

Portable electronics 便携式电子产品

Control & monitoring systems 控制与监视系统

Servers, notebooks, and desktop PCs bus protection

服务器、笔记本及台式机总线保护



■ Device Marking 产品打标

■ Absolute Maximum Ratings 最大额定值

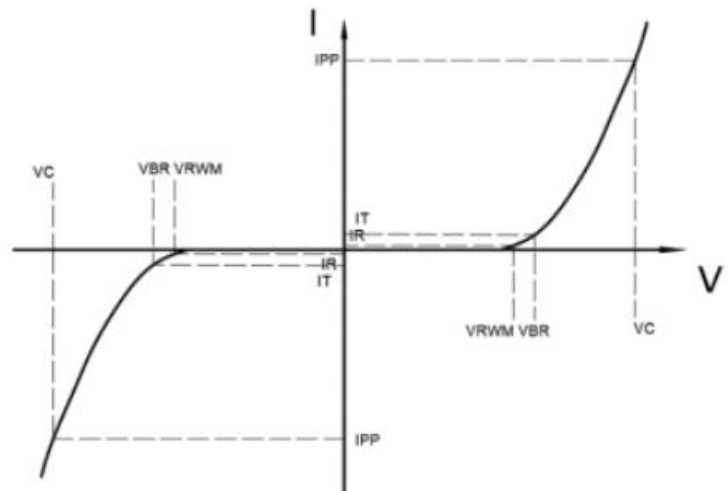
| Characteristic 特性参数 | Symbol 符号 | Rat 额定值 | Unit 单位 |
|---|-----------|----------|---------|
| ESD (IEC61000-4-2 contact discharge) @25°C接触放电 | V_{ESD} | ± 30 | KV |
| ESD (IEC61000-4-2 air discharge) @25°C空气放电 | V_{ESD} | ± 30 | KV |
| Peak Pulse Power @25°C峰值脉冲功率 | P_{PK} | 250 | W |
| Peak Pulse 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

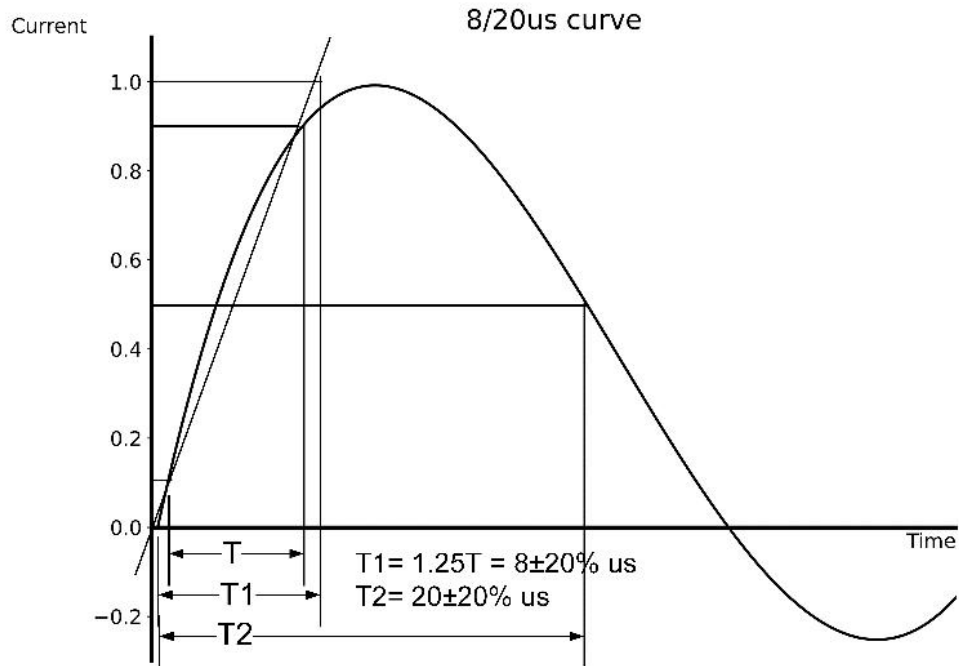
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

| Characteristic Parameters 特性参数 | Symbol 符号 | Min 最小值 | Typ 典型值 | Max 最大值 | Unit 单位 | Condition 条件 |
|-------------------------------------|--------------|------------|------------|------------|---------------|--|
| Reverse Stand-off Voltage 反向工作电压 | V_{RWM} | | | 3.3 | V | |
| Reverse Breakdown Voltage 反向击穿电压 | V_{BR} | 3.5 | | | V | $I_T=1\text{mA}$ |
| Reverse Leakage Current 反向漏电流 | I_R | | | 1 | μA | $V_{RWM}=3.3\text{V}$ |
| Clamping Voltage 钳位电压 | V_C | | 8 | | V | $I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$ |
| Clamping Voltage 钳位电压 | V_C | | 15 | | V | $I_{PP}=20\text{A}, t_p=8/20\mu\text{s}$ |
| Diode Capacitance 二极管电容 | C_D | | 60 | | pF | $V_R=0\text{V}, f=1\text{MHz}$ |

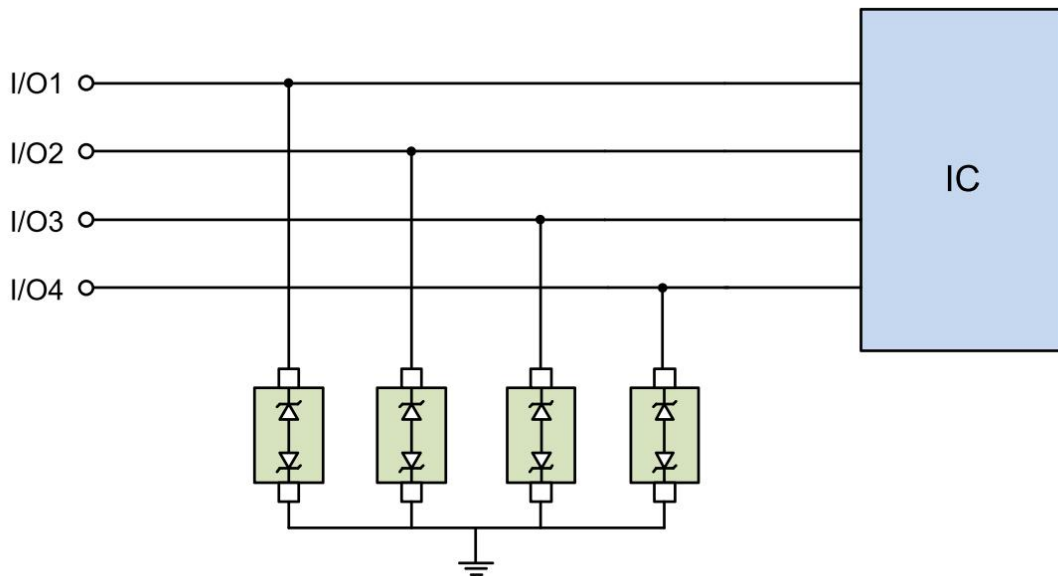
| | |
|-------------|--|
| V_{RWM} | Reverse Working Voltage 反向工作电压 |
| $V_{R(BR)}$ | Reverse Breakdown Voltage 反向击穿电压@ $I_T=1\text{mA}$ |
| I_T | Test Current 测试电流 |
| I_R | Reverse Leakage Current 反向漏电流@ V_{RWM} |
| V_C | Clamping Voltage 钳位电压 |
| I_{PP} | Reverse Peak Pulse Current 浪涌电流 |
| C_J | Junction Capacitance 结电容 $V_{I0}=0\text{V}, V_{P-P}=30\text{mV}, f=1\text{MHz}$ |



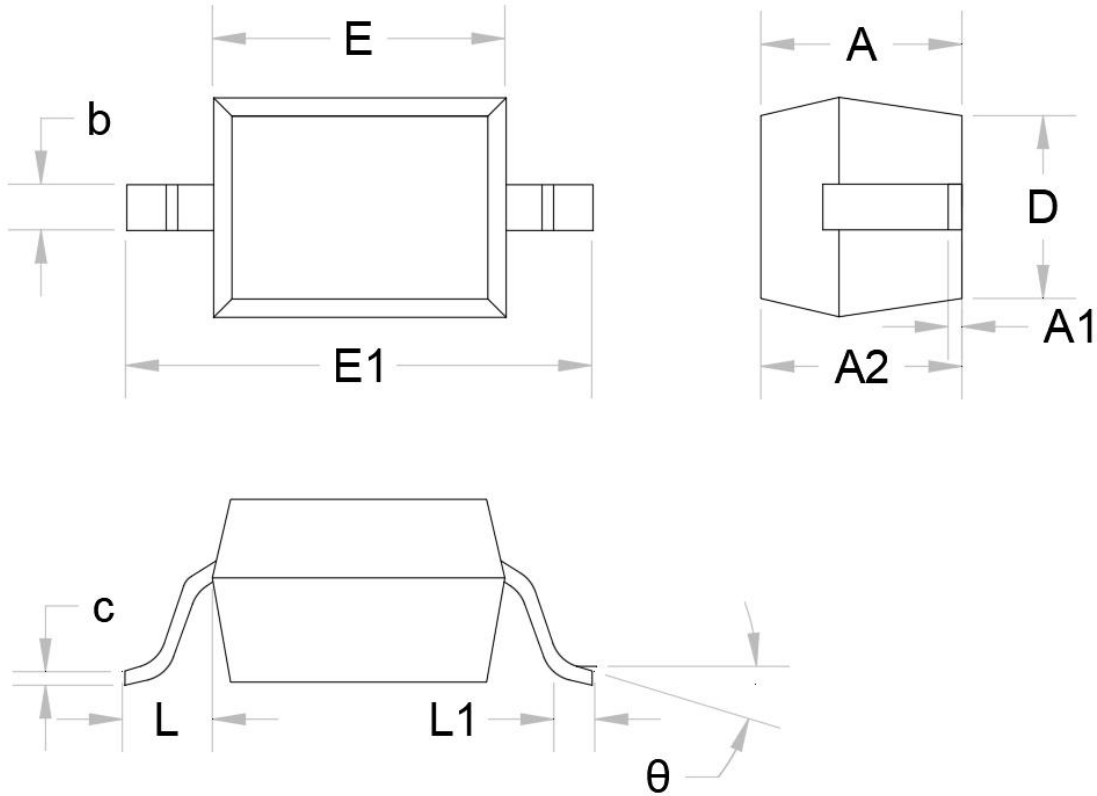
■ Typical Characteristic Curve 典型特性曲线



■ 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 |
| θ | 0° | 8° | 0° | 8° |