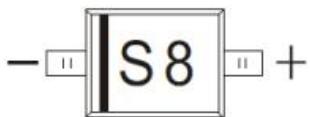
**MARKING: S8****SOD-523 贴片塑封二极管****SOD-523 Plastic-Encapsulate Diodes****特征 Features**

- 低正向电压差 Low Forward Voltage Drop
- 快速开关时间 Fast Switching Time
- 适用于自动插件的理想的表贴封装 Surface Mount Package Ideally Suited For Automatic Insertion

**机械数据 Mechanical Data**

- 封装: SOD-523 封装 SOD-523 Small Outline Plastic Package
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 环氧树脂UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

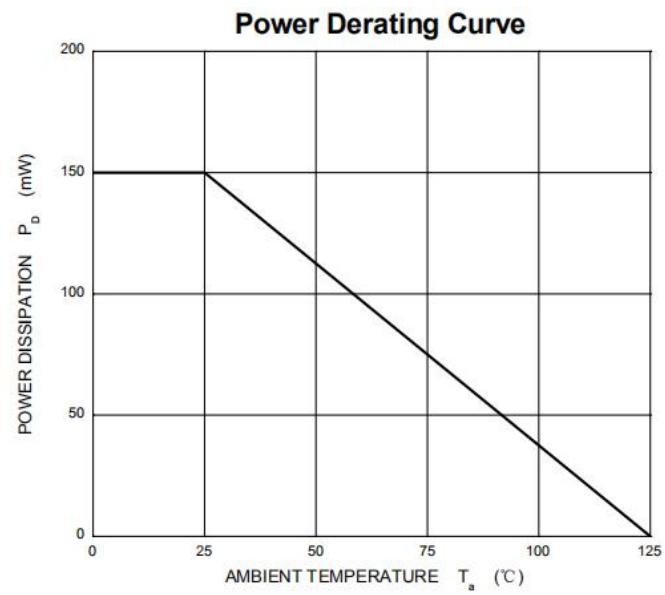
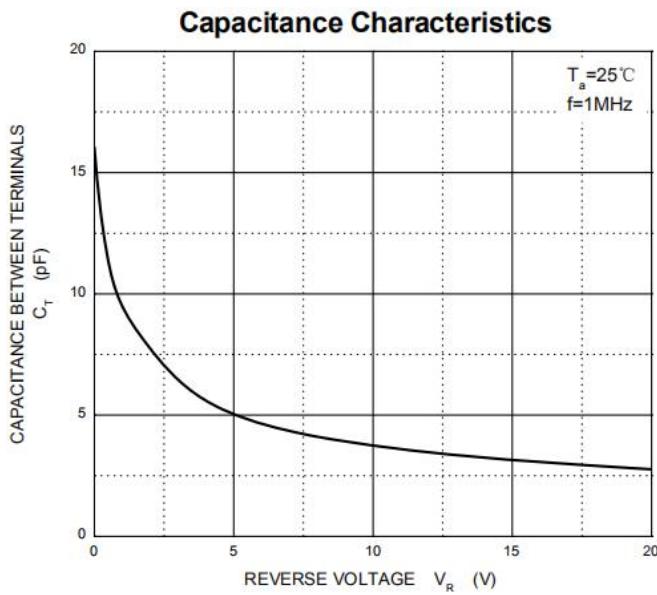
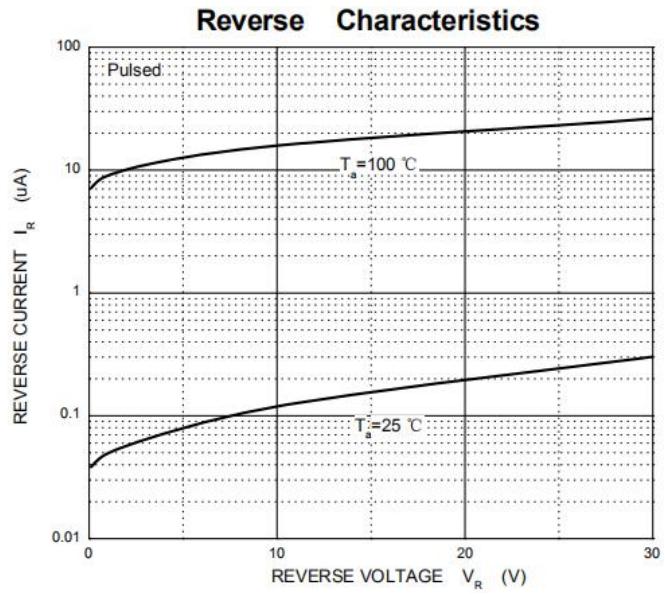
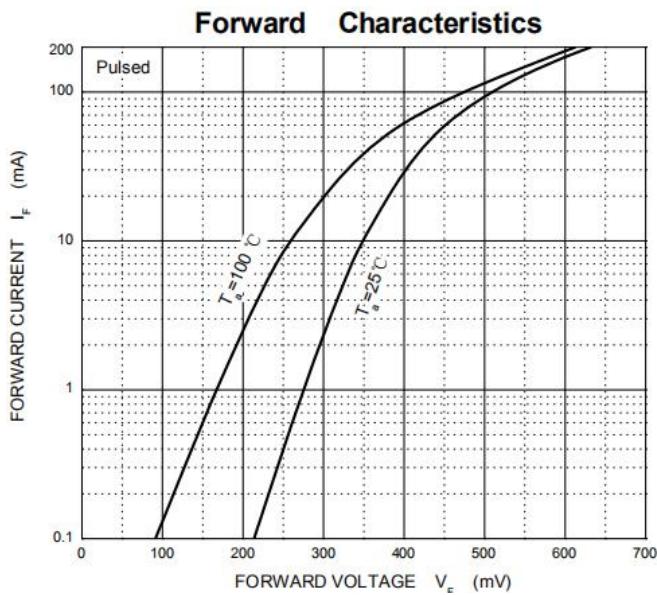
极限值和温度特性( $T_A = 25^\circ\text{C}$  除非另有规定)**Maximum Ratings & Thermal Characteristics** (Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.)

| 参数 Parameters  | 符号 Symbol       | 数值 Value | 单位 Unit |
|--|-----------------|----------|---------|
| 直流阻断电压 DC Blocking Voltage   | $V_R$           |          |         |
| 峰值重复反向电压 Peak Repetitive Reverse Voltage                                   | $V_{RRM}$       | 30       | V       |
| 反向峰值工作电压 Working Peak Reverse Voltage                                      | $V_{RWM}$       |          |         |
| 均方根反向电压 RMS Reverse Voltage  | $V_{R(RMS)}$    | 21       | V       |
| 正向连续电流 Forward Continuous Current  | $I_{FM}$        | 200      | mA      |
| 尖峰正向重复电流 Repetitive Peak Forward Current @ $t < 1.0\text{s}$               | $I_{FRM}$       | 500      | mA      |
| 尖峰正向不重复浪涌电流 Non-repetitive Peak Forward Surge Current @ $t = 8.3\text{ms}$ | $I_{FSM}$       | 4.0      | A       |
| 功率消耗 Power Dissipation   | $P_d$           | 150      | mW      |
| 结温 Junction temperature  | $T_j$           | 125      | °C      |
| 存储温度 Storage temperature range   | $T_{STG}$       | -55~+150 | °C      |
| 热阻 Thermal Resistance from Junction to Ambient                             | $R_{\theta JA}$ | 667      | °C/W    |

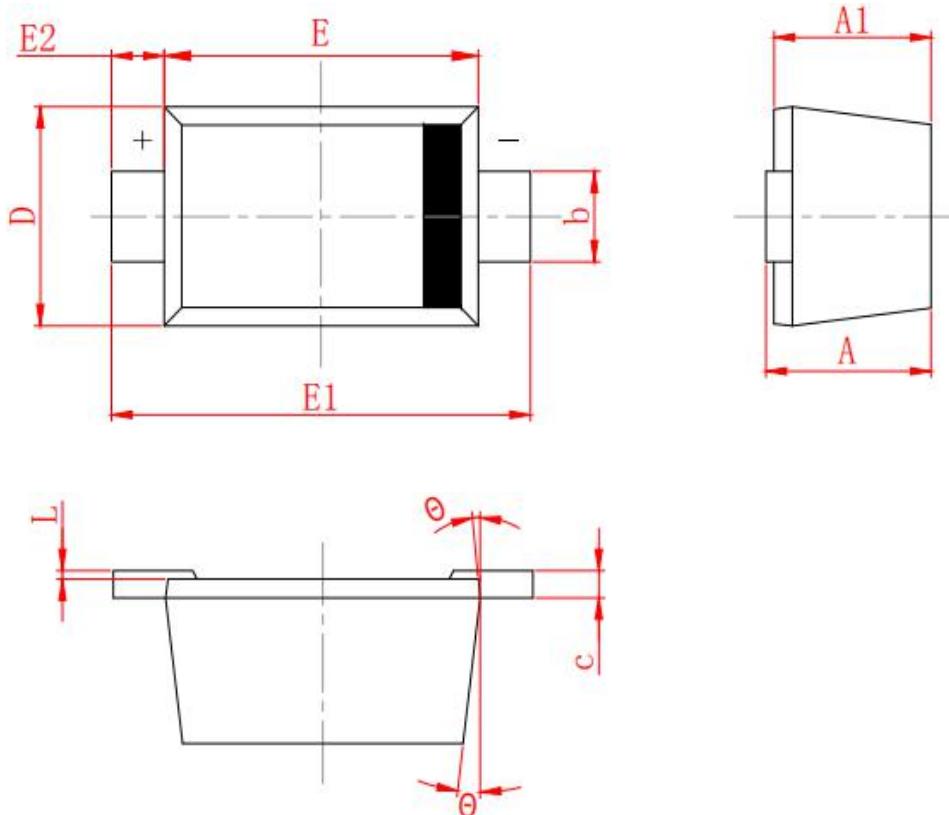
**电特性 Electrical Characteristics** (Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified).

| 符号 Symbols | 参数 Parameter                        | 测试条件 Test Condition                    | 界限 Limits |      | 单位 Unit       |
|------------|-------------------------------------|--|-----------|------|---------------|
|            |                                     |  | Min       | Max  |               |
| $V(BR)$    | 反向击穿电压 Reverse Breakdown Voltage    | $I_R=10\mu\text{A}$                    | 30        |      | V             |
| $I_R$      | 反向漏电流 Reverse Current               | $VR=25\text{V}$                        | ---       | 0.5  | $\mu\text{A}$ |
| $V_F$      | 正向电压 Forward Voltage                | $I_F=2\text{mA}$                       | 0.26      | 0.33 | V             |
|            |                                     | $I_F=15\text{mA}$                      | ---       | 0.45 |               |
|            |                                     | $I_F=200\text{mA}$                     |           | 1    |               |
| $V_{FR}$   | 正向恢复电压 Forward recovery voltage     | $I_F=10\text{mA}, t_r=20\text{ns}$     |           | 1.75 | V             |
| $T_{RR}$   | 反向恢复时间 Reverse Recovery Time        | $I_F = I_R = 10\text{mA},$             | ---       | 5    | nS            |
|            |                                     | $I_{rr}=0.1 \times I_R, R_L=100\Omega$ |           |      |               |
| $C_T$      | 端子间电容 Capacitance Between Terminals | $VR=1\text{V}, f=1\text{MHz}$          | ---       | 10   | pF            |

## 典型特性 Typical Characteristics

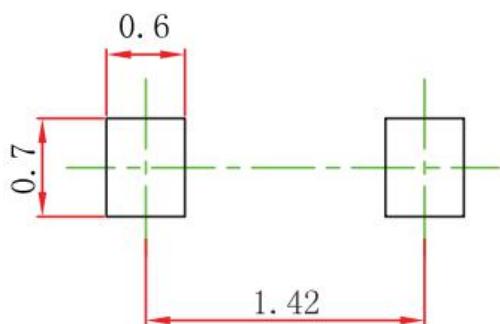


## SOD-523封装外形尺寸图 SOD-523 Package Outline Dimensions



| SYMBOL | MILLIMETER |       |
|--------|------------|-------|
|        | MIN        | MAX   |
| A      | 0.530      | 0.730 |
| A1     | 0.500      | 0.700 |
| b      | 0.280      | 0.380 |
| c      | 0.080      | 0.150 |
| D      | 0.750      | 0.850 |
| E      | 1.100      | 1.300 |
| E1     | 1.500      | 1.700 |
| E2     | 0.200      | REF   |
| L      | 0.010      | 0.070 |
| θ      | 7°         | REF   |

## SOD-523焊盘设计参考 SOD-523 Suggested Pad Layout



## Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.