

## 特征 Features

- 小尺寸封装 Small Package
- 低反向电流 Low Reverse Current
- 开关速度快 Fast Switching Speed
- 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

## MARKING: T4



极限值和温度特性( $T_A = 25^\circ\text{C}$  除非另有规定)

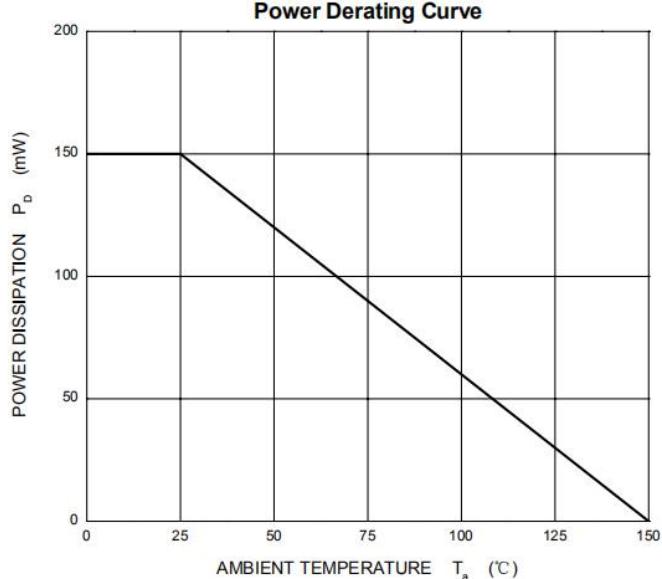
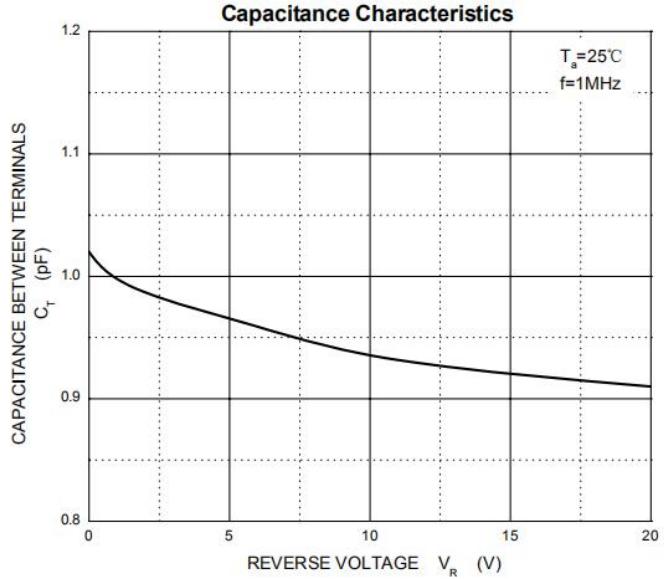
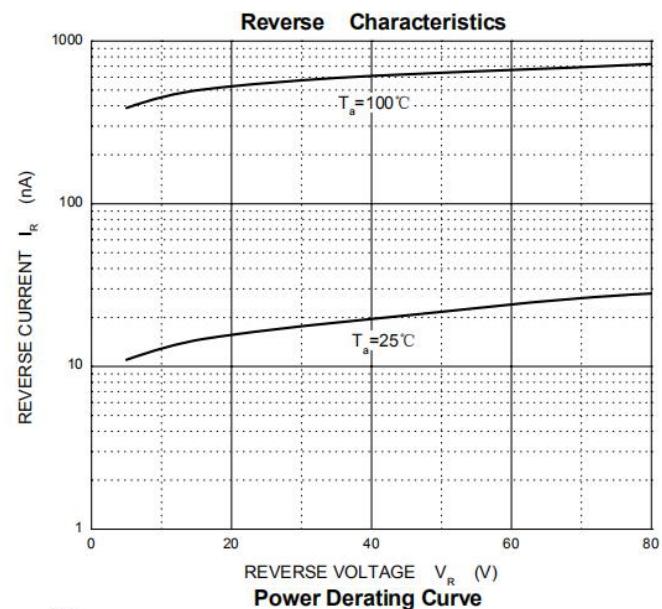
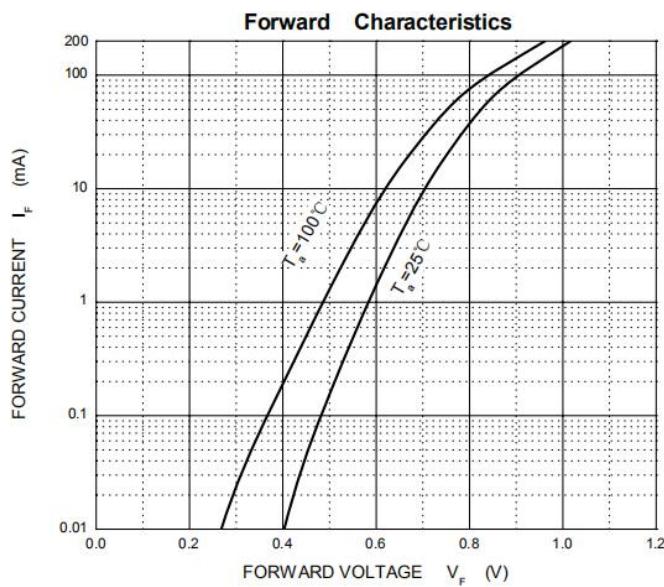
**Maximum Ratings & Thermal Characteristics** (Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.)

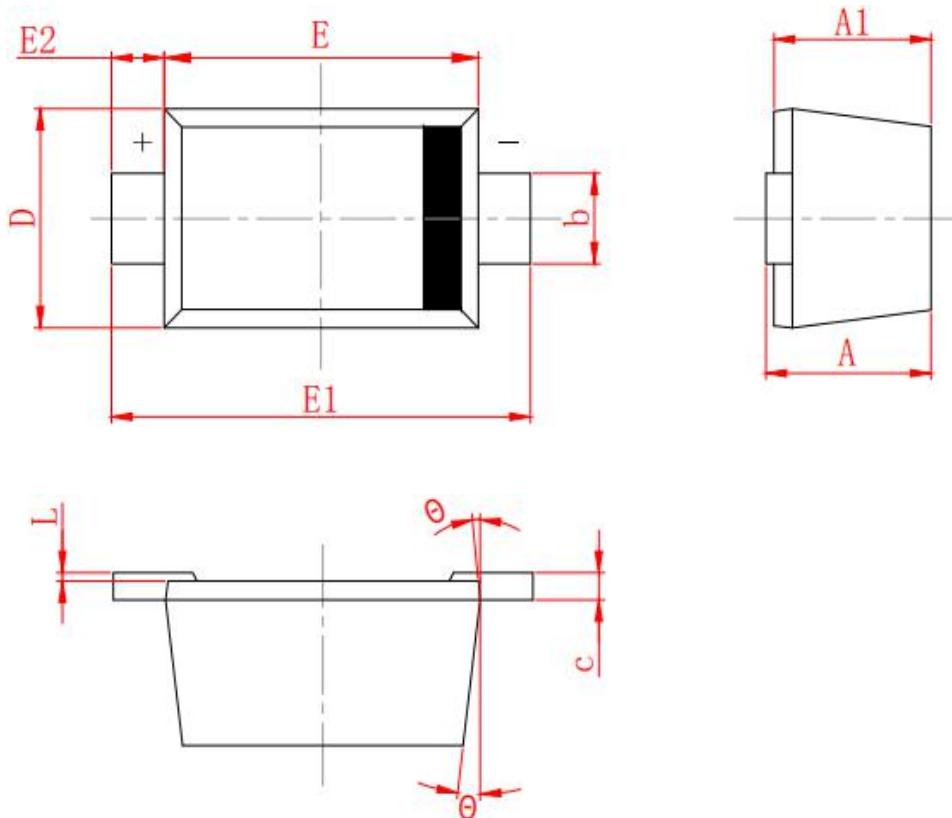
| 参数 Parameters  | 符号 Symbol       | 数值 Value | 单位 Unit |
|--|-----------------|----------|---------|
| 反向不重复峰值电压 Non-Repetitive Peak Reverse Voltage                            | $V_{RM}$        | 100      | V       |
| 反向电压 Reverse Voltage   | $V_R$           |          |         |
| 峰值重复反向电压 Peak Repetitive Reverse Voltage                                 | $V_{RRM}$       | 75       | 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  | $V_{R(RMS)}$    | 53       | V       |
| 平均整流输出电流 Average Rectified Output Current                                | $I_o$           | 150      | mA      |
| 正向连续电流 Forward Continuous Current  | $I_{FM}$        | 300      | mA      |
| 尖峰正向不重复浪涌电流 Non-repetitive Peak Forward Surge Current@ $t= 8.3\text{ms}$ | $I_{FSM}$       | 2.0      | A       |
| 功率消耗 Power Dissipation   | $P_d$           | 150      | mW      |
| 结温 Junction temperature  | $T_j$           | 150      | °C      |
| 存储温度 Storage temperature range   | $T_{STG}$       | -55~+150 | °C      |
| 热阻 Thermal Resistance from Junction to Ambient                           | $R_{\theta JA}$ | 833      | °C/W    |

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

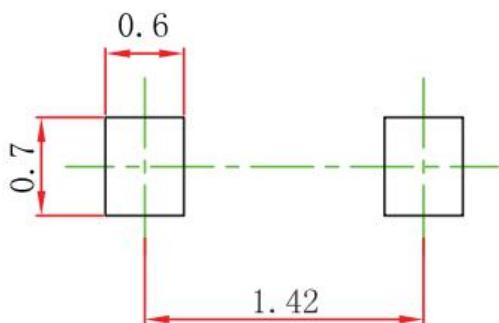
| 符号<br>Symbols | 参数<br>Parameter                   | 测试条件<br>Test Condition        | 界限 Limits |       | 单位<br>Unit    |
|---------------|-----------------------------------|-------------------------------|-----------|-------|---------------|
|               |                                   |                               | Min       | Max   |               |
| $V_{(BR)}$    | 反向击穿电压<br>Breakdown Voltage       | $I_R=1\mu\text{A}$            | 75        |       | V             |
| $I_R$         | 反向漏电电流<br>Reverse Leakage Current | $VR=20\text{V}$               | ---       | 25    | nA            |
|               |                                   | $VR=75$                       | ---       | 1     | $\mu\text{A}$ |
| $V_F$         | 正向电压<br>Forward Voltage           | $I_F=1\text{mA}$              | ---       | 0.715 | V             |
|               |                                   | $I_F=10\text{mA}$             | ---       | 0.855 |               |
|               |                                   | $I_F=50\text{mA}$             |           | 1     |               |
|               |                                   | $I_F=150\text{mA}$            |           | 1.25  |               |
| $T_{RR}$      | 反向恢复时间<br>Reverse Recovery Time   | $I_F = I_R = 10\text{mA},$    | ---       | 4     | nS            |
|               |                                   | $I_{rr}=0.1*I_R,$             |           |       |               |
|               |                                   | $R_L=100\Omega,$              |           |       |               |
| $C$           | 结电容<br>Capacitance                | $VR=0\text{V}, f=1\text{MHZ}$ | ---       | 2     | 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 |
| $\theta$ | 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.