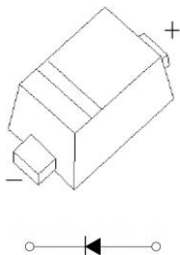


## SOD-523 贴片塑封二极管

## SOD-523 Plastic-Encapsulate Diodes

SOD-523



MARKING: T4



## 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

极限值和温度特性(TA = 25°C 除非另有规定)

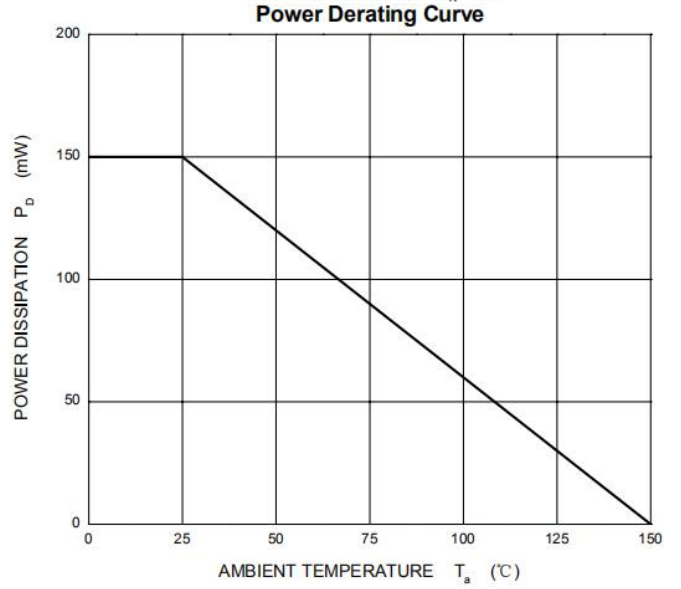
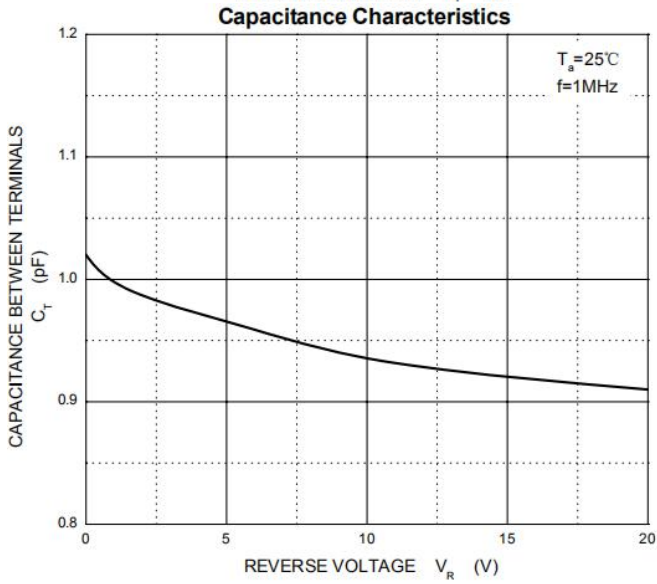
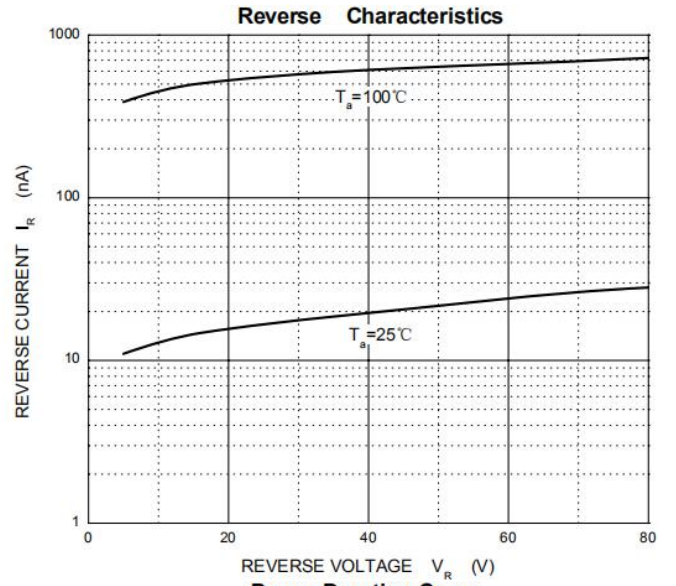
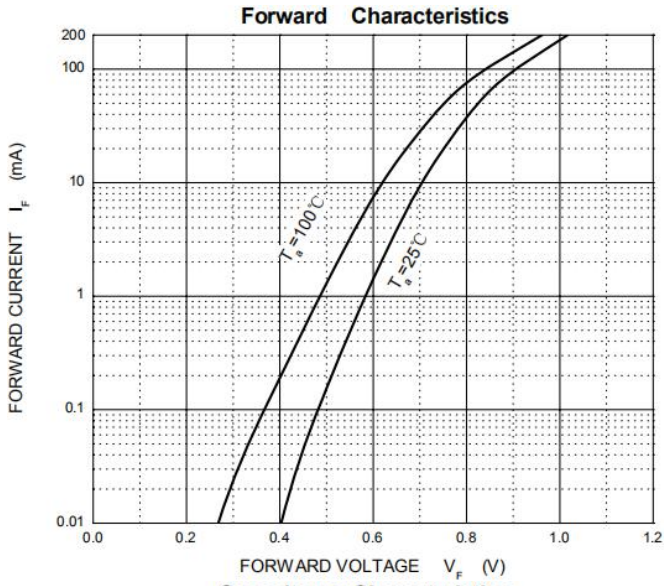
Maximum Ratings &amp; Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

| 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 <sub>RM</sub>     | 100      | V       |
| 反向电压 Reverse Voltage  | V <sub>R</sub>      | 75       | V       |
| 峰值重复反向电压 Peak Repetitive Reverse Voltage                        | V <sub>RRM</sub>    |          |         |
| 反向峰值工作电压 Working Peak Reverse Voltage                           | V <sub>RWM</sub>    | 53       | V       |
| 均方根反向电压 RMS Reverse Voltage                                     | V <sub>R(RMS)</sub> |          |         |
| 平均整流输出电流 Average Rectified Output Current                       | I <sub>O</sub>      | 150      | mA      |
| 正向连续电流 Forward Continuous Current                               | I <sub>FM</sub>     | 300      | mA      |
| 尖峰正向不重复浪涌电流 Non-repetitive Peak Forward Surge Current @t= 8.3ms | I <sub>FSM</sub>    | 2.0      | A       |
| 功率消耗 Power Dissipation  | P <sub>d</sub>      | 150      | mW      |
| 结温 Junction temperature   | T <sub>j</sub>      | 150      | °C      |
| 存储温度 Storage temperature range                                  | T <sub>STG</sub>    | -55-+150 | °C      |
| 热阻 Thermal Resistance from Junction to Ambient                  | R <sub>θJA</sub>    | 833      | °C/W    |

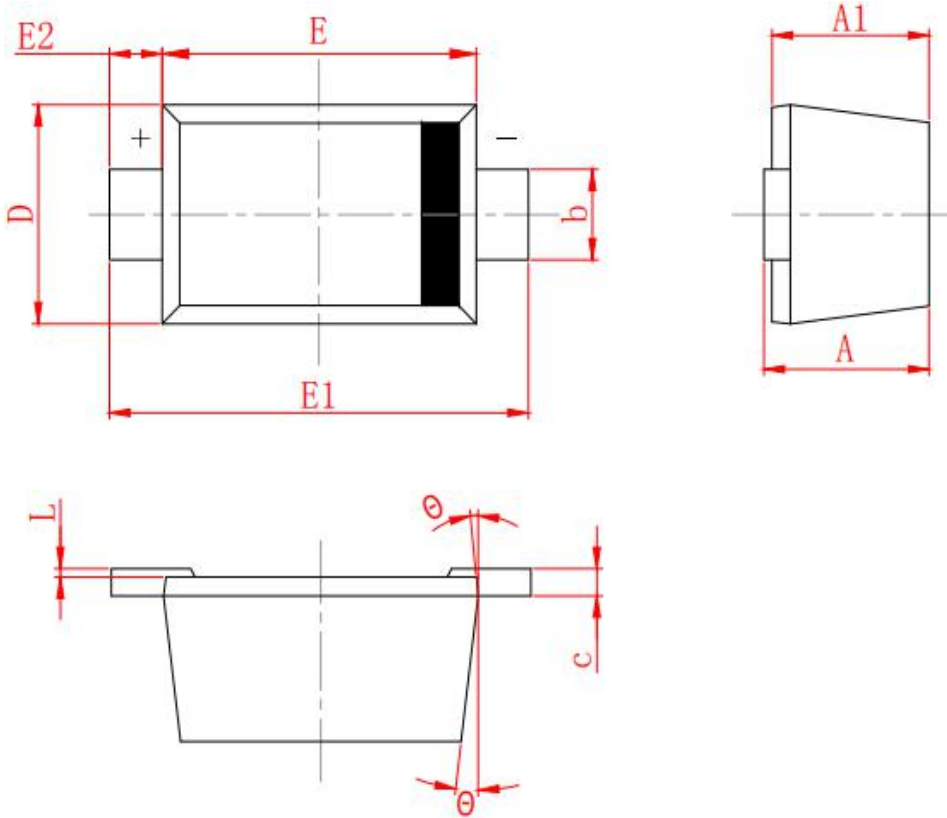
电特性 Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

| 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<br>Breakdown Voltage      | I <sub>R</sub> =1uA                     | 75        |       | V       |
| I <sub>R</sub>  | 反向漏电流<br>Reverse Leakage Current | V <sub>R</sub> =20V                     | ---       | 25    | nA      |
|                 |                                  | V <sub>R</sub> =75                      | ---       | 1     | uA      |
| V <sub>F</sub>  | 正向电压<br>Forward Voltage          | I <sub>F</sub> =1mA                     | ---       | 0.715 | V       |
|                 |                                  | I <sub>F</sub> =10mA                    | ---       | 0.855 |         |
|                 |                                  | I <sub>F</sub> =50mA                    |           | 1     |         |
|                 |                                  | I <sub>F</sub> =150mA                   |           | 1.25  |         |
| T <sub>RR</sub> | 反向恢复时间<br>Reverse Recovery Time  | I <sub>F</sub> = I <sub>R</sub> = 10mA, | ---       | 4     | nS      |
|                 |                                  | I <sub>rr</sub> =0.1*I <sub>R</sub> ,   |           |       |         |
|                 |                                  | R <sub>L</sub> =100Ω,                   |           |       |         |
| C               | 结电容<br>Capacitance               | V <sub>R</sub> =0V, f=1MHZ              | ---       | 2     | pF      |

典型特性 Typical Characteristics

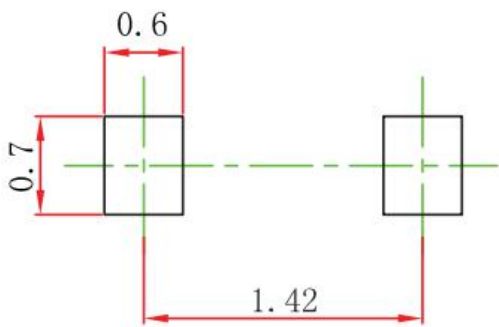


SOD-523封装外形尺寸图 SOD-523 Package Outline Dimensions



| 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 |
| 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.