

## SOD-123 Switching Diode 开关二极管

### ■Features 特点

Fast Switching Speed 快的开关速度

Surface mount device 表面贴装器件

High Conductance 高电导率

Case 封装:SOD-123

Marking 印字: T4



### ■Maximum Rating 最大额定值

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

| Characteristic 特性参数                                                             | Symbol 符号       | Rating 额定值                         | Unit 单位                     |
|---------------------------------------------------------------------------------|-----------------|------------------------------------|-----------------------------|
| Non-Repetitive Peak Reverse Voltage 不重复反向峰值电压                                   | $V_{RM}$        | 100                                | V                           |
| DC Reverse Voltage 直流反向电压                                                       | $V_R$           | 100                                | V                           |
| Peak Repetitive Reverse Voltage 峰值重复反向电压                                        | $V_{RRM}$       | 100                                | V                           |
| Woke Peak Reverse Voltage 峰值反向工作电压                                              | $V_{RWM}$       | 100                                | V                           |
| RMS Reverse Voltage 反向电压均方根值                                                    | $V_{R(RMS)}$    | 71                                 | V                           |
| Forward Rectified Output Current 正向工作电流                                         | $I_O$           | 150                                | mA                          |
| Forward Continuous Current 正向连续电流                                               | $I_{FM}$        | 300                                | mA                          |
| Non-Repetitive Peak Surge Current@ $t=1\mu\text{S}$<br>不重复峰值浪涌电流@ $t=1\text{S}$ | $I_{FSM}$       | 4<br>1                             | A                           |
| Power Dissipation 耗散功率                                                          | $P_D$           | 400                                | mW                          |
| Thermal Resistance Junction-Ambient 结到环境热阻                                      | $R_{\theta JA}$ | 357                                | $^{\circ}\text{C}/\text{W}$ |
| Junction/Storage Temperature 结温/储藏温度                                            | $T_J, T_{stg}$  | $-65\text{to}+150^{\circ}\text{C}$ | $^{\circ}\text{C}$          |

### ■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 特性参数            | Symbol 符号 | Min 最小值 | Max 最大值                       | Unit 单位             | Condition 条件                                                                     |
|--------------------------------|-----------|---------|-------------------------------|---------------------|----------------------------------------------------------------------------------|
| Reverse Voltage 反向电压           | $V_R$     | 100     |                               | V                   | $I_R=1\mu\text{A}$                                                               |
| Forward Voltage 正向电压           | $V_F$     |         | 0.715<br>0.855<br>1.0<br>1.25 | V                   | $I_F=1\text{mA}$<br>$I_F=10\text{mA}$<br>$I_F=50\text{mA}$<br>$I_F=150\text{mA}$ |
| Reverse Current 反向电流           | $I_R$     |         | 1<br>25                       | $\mu\text{A}$<br>nA | $V_R=75\text{V}$<br>$V_R=20\text{V}$                                             |
| Revers Recovery Time<br>反向恢复时间 | $T_{rr}$  |         | 4                             | nS                  | $I_{rr}=0.1*I_R, R_L=100\Omega,$<br>$I_F=I_R=10\text{mA}$                        |
| Junction Capacitance 结电容       | $C_J$     |         | 2                             | pF                  | $V_R=0\text{V}, f=1\text{MHz}$                                                   |

## ■ Typical Characteristic Curve 典型特性曲线

Fig.1 Power Derating Curve

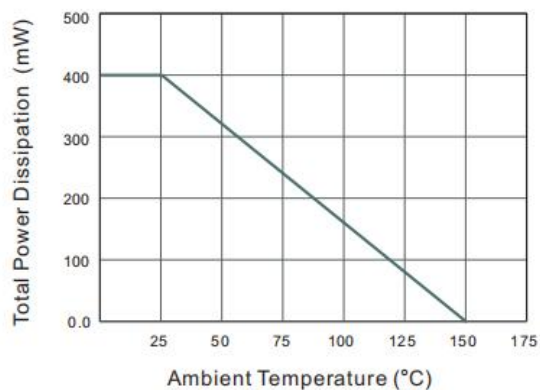


Fig.2 Typical Reverse Characteristics

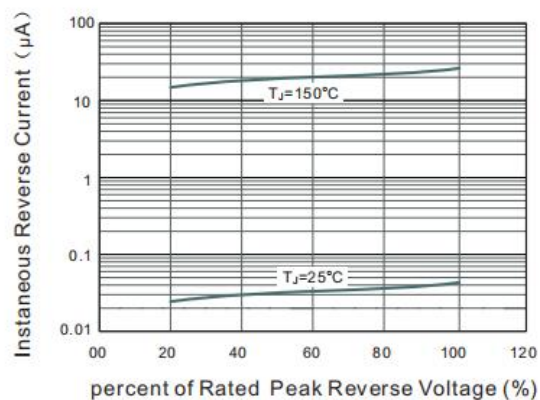


Fig.3 Typical Instaneous Forward Characteristics

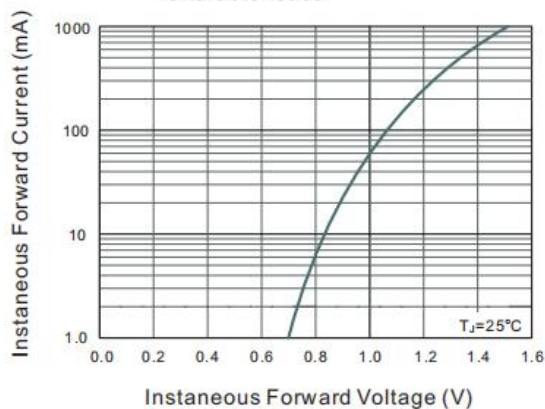
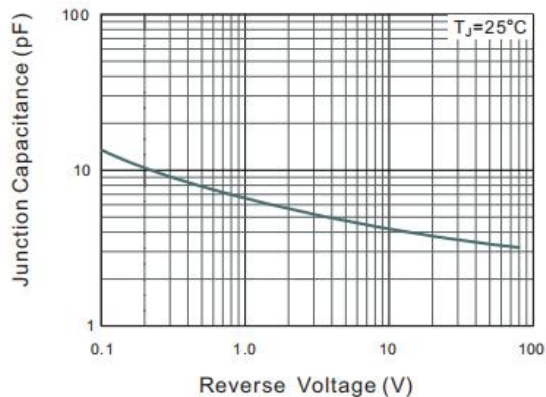
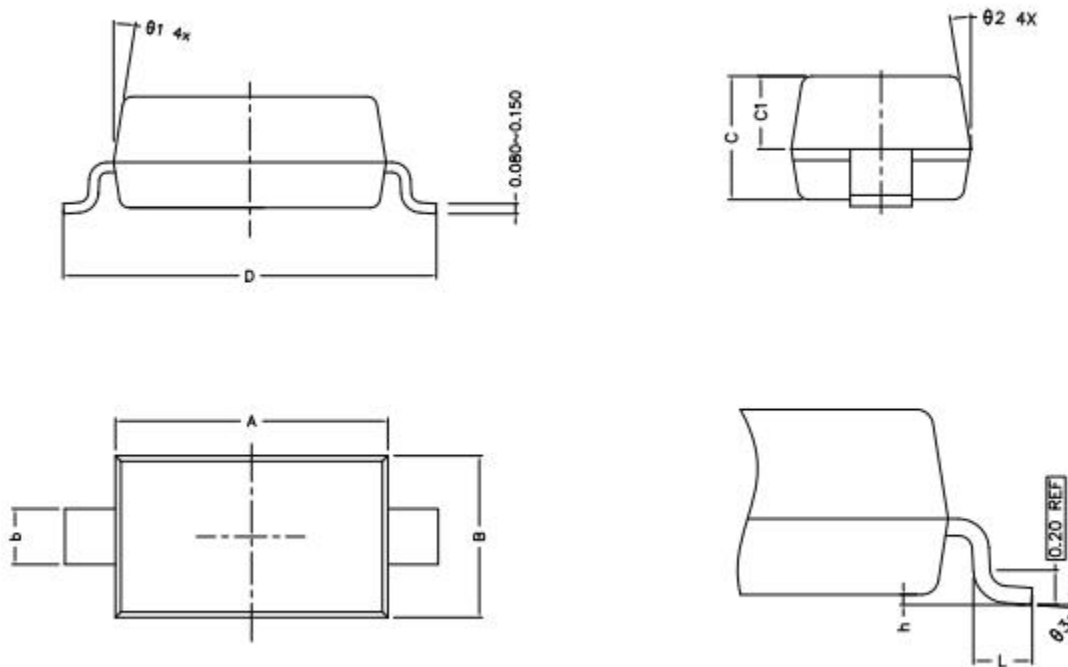


Fig.4 Typical Junction Capacitance



■ **Dimension** 外形封装尺寸



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 2.600                     | 2.800 | 0.102                | 0.110 |
| B      | 1.500                     | 1.700 | 0.059                | 0.067 |
| C      | 1.050                     | 1.150 | 0.041                | 0.045 |
| C1     | 0.600                     | 0.700 | 0.024                | 0.028 |
| D      | 3.550                     | 3.850 | 0.140                | 0.152 |
| L      | 0.250                     | 0.450 | 0.010                | 0.018 |
| b      | 0.450                     | 0.650 | 0.018                | 0.026 |
| h      | 0.020                     | 0.120 | 0.001                | 0.005 |
| θ 3    | 0°                        | 7°    | 0°                   | 7°    |