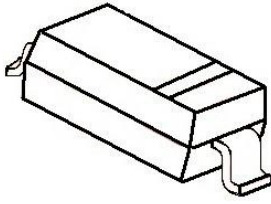


# SOD-123 贴片塑封开关二极管

## 500mW SOD-123 Fast Switching Diode

SOD-123



MARKING:T4

### 特征 Features

- 开关速度小于 4.0nS; Fast Switching Device ( $T_{rr} < 4.0nS$ )
- 最大功率耗散 500mW; Power Dissipation of 500mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

### 机械数据 Mechanical Data

- 封装: SOD-123 封装 SOD-123 Small Outline Plastic Package
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置: 任意 Mounting Position: Any
- Device meets MSL 1 requirements

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

#### Maximum Ratings & Thermal Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise specified)

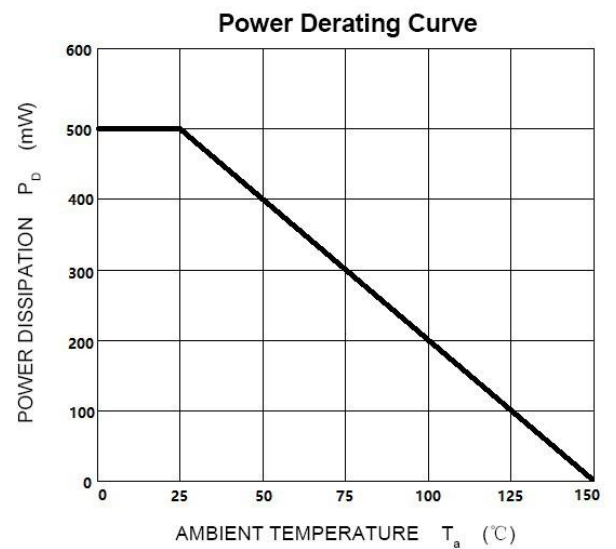
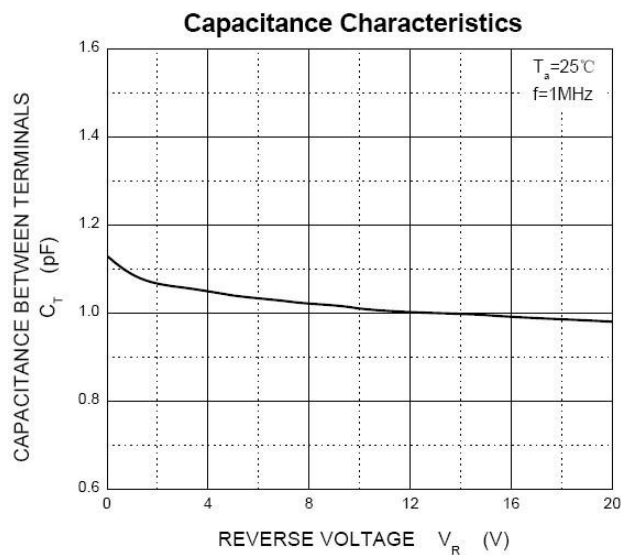
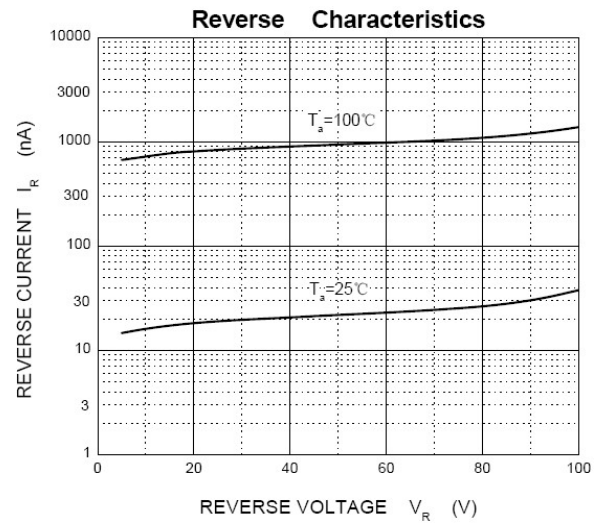
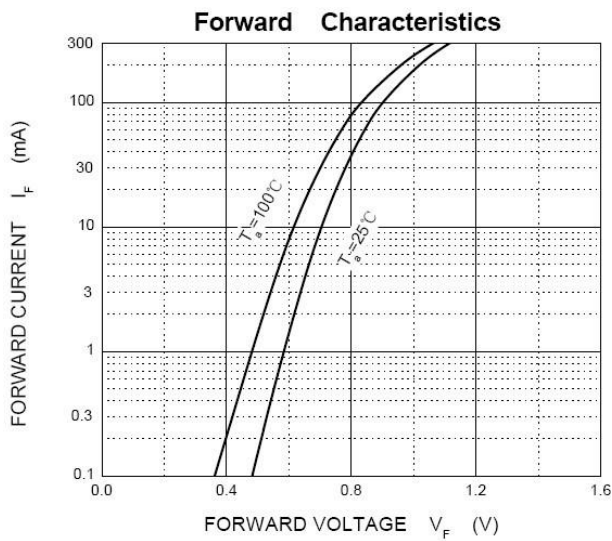
| 参数 Parameters                                                                  | 符号 Symbol | 数值 Value | 单位 Unit          |
|--------------------------------------------------------------------------------|-----------|----------|------------------|
| 反向峰值电压 Peak Reverse Voltage                                                    | $V_{RRM}$ | 100      | V                |
| 功率消耗 Power Dissipation                                                         | $P_d$     | 500      | mW               |
| 工作结温 Operating junction temperature                                            | $T_j$     | 150      | $^\circ\text{C}$ |
| 存储温度 Storage temperature range                                                 | $T_{STG}$ | -55-+150 | $^\circ\text{C}$ |
| 平均整流电流 Average Rectified Forward Current                                       | $I_O$     | 150      | mA               |
| 正向(不重复)电流 Non-repetitive Peak Forward Current                                  | $I_{FM}$  | 300      | mA               |
| 正向(不重复)浪涌电流 Peak Forward Surge Current @ $t_p=1\mu s$ ; $T_A=25^\circ\text{C}$ | $I_{FSM}$ | 2.0      | A                |

Valid provided that electrodes are kept at ambient temperature.

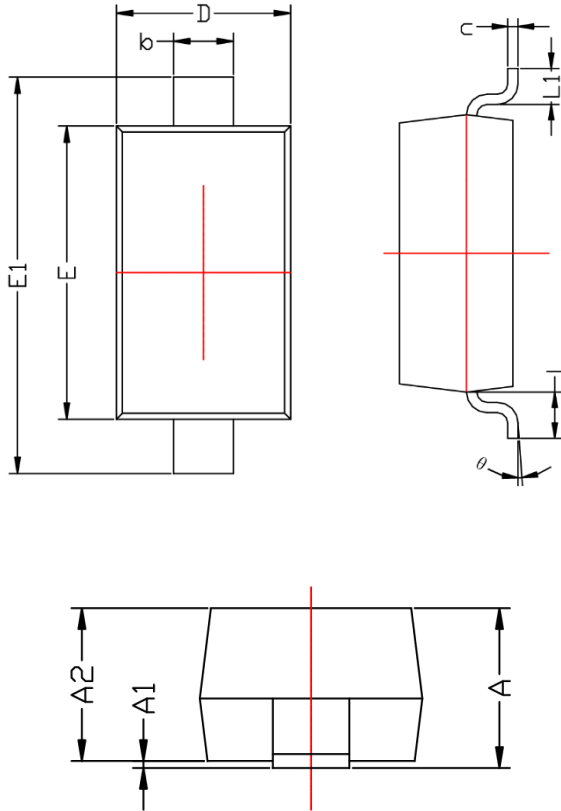
### 电特性 Electrical Characteristics( $T_A=25^\circ\text{C}$ unless otherwise specified)

| 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 Voltage        | $I_R=100\mu A$                                           | 100       | ---  | V       |
| $I_R$      | 反向漏电流 Reverse Leakage Current | $V_R=20V$                                                | ---       | 25   | nA      |
|            |                               | $V_R=75V$                                                | ---       | 5    | $\mu A$ |
| $V_F$      | 正向电压 Forward Voltage          | $I_F=10mA$                                               | ---       | 1.0  | V       |
|            |                               | $I_F=100mA$                                              | ---       | 1.25 |         |
| $T_{rr}$   | 反向恢复时间 Reverse Recovery Time  | $I_F=I_R=10mA, R_L=100\Omega$<br>$I_{RR}=0.1 \times I_R$ | ---       | 4    | nS      |
| $C_T$      | 结电容 Capacitance               | $V_R=0V, f=1MHz$                                         | ---       | 4    | pF      |

Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)

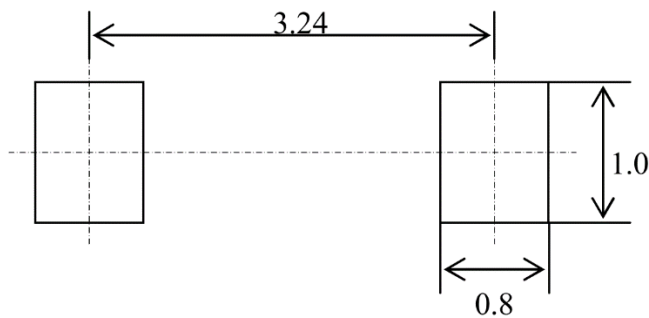


**SOD-123 Package Outline Drawing**



| SYMBOL | DIMENSIONS |       |
|--------|------------|-------|
|        | MIN.       | MAX.  |
| A      | 1.050      | 1.250 |
| A1     | 0.000      | 0.100 |
| A2     | 1.050      | 1.150 |
| b      | 0.450      | 0.650 |
| c      | 0.080      | 0.150 |
| D      | 1.500      | 1.700 |
| E      | 2.600      | 2.800 |
| E1     | 3.550      | 3.850 |
| L      | 0.500REF   |       |
| L1     | 0.250      | 0.450 |
| θ      | 0°         | 8°    |

**Suggested Land Pattern**



**技术要求:**

中心距: 3.24  
脚 宽: 0.55  
焊盘宽: 1.00  
脚 长: 0.50  
焊盘长: 0.80

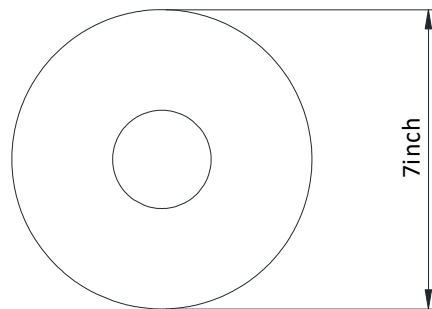
1, 塑封体尺寸: 2.70 X 1.60  
2, 未注公差为:  $\pm 0.05$   
3, 所有单位: mm

## Ordering Information

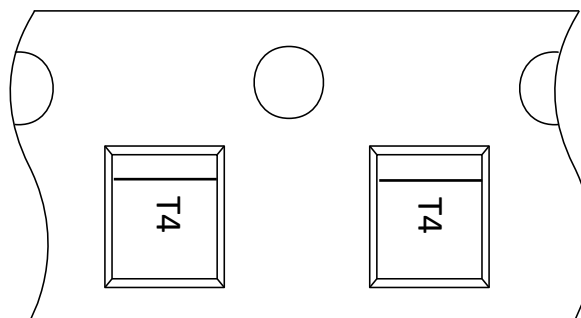
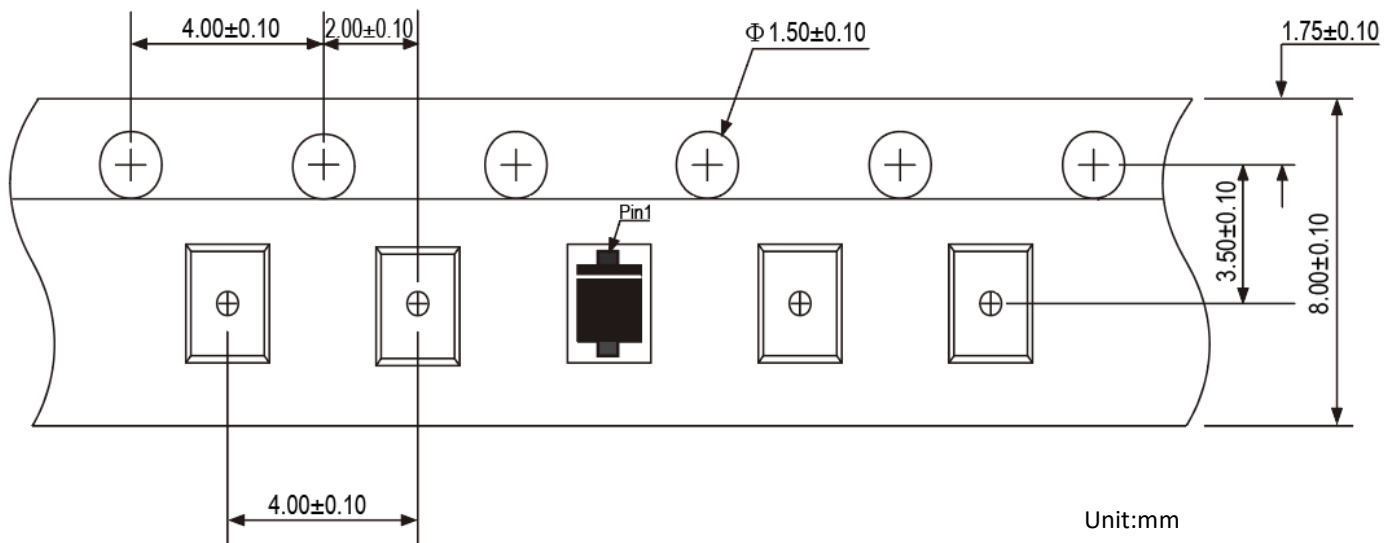
| Part Number | Shipping         | Reel Size |
|-------------|------------------|-----------|
| 1N4148W     | 3000/Tape & Reel | 7 inch    |

## TAPE AND REEL INFORMATION

Reel Dimensions



Tape Dimensions



User Direction of Feed

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