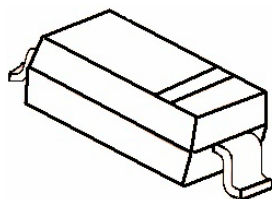


SOD-123



MARKING: T6

特征 Features

- 开关速度小于 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 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
- 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℃ 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

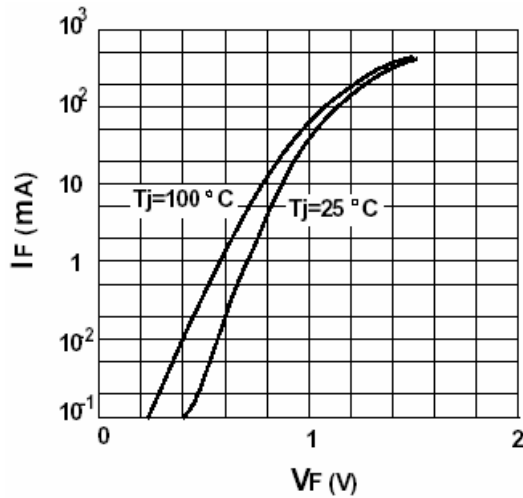
| 参数 Parameters                                             | 符号 Symbol        | 数值 Value | 单位 Unit |
|-----------------------------------------------------------|------------------|----------|---------|
| 反向电压 Reverse Voltage                                      | V <sub>R</sub>   | 75       | V       |
| 反向峰值电压 Peak Reverse Voltage                               | V <sub>RM</sub>  | 100      | V       |
| 功率消耗 Power Dissipation                                    | P <sub>d</sub>   | 500      | mW      |
| 工作结温 Operating junction temperature                       | T <sub>j</sub>   | 150      | ℃       |
| 存储温度 Storage temperature range                            | T <sub>s</sub>   | -55-+150 | ℃       |
| 反向工作电压 Working Inverse Voltage                            | W <sub>IV</sub>  | 75       | V       |
| 平均整流电流 Average Rectified Current                          | I <sub>o</sub>   | 150      | mA      |
| 正向(不重复)电流 Non-repetitive Peak Forward Current             | I <sub>FM</sub>  | 300      | mA      |
| 正向(不重复)浪涌电流 Peak Forward Surge Current<br>@tp=1us; TA=25℃ | I <sub>FSM</sub> | 2.0      | A       |

Valid provided that electrodes are kept at ambient temperature.

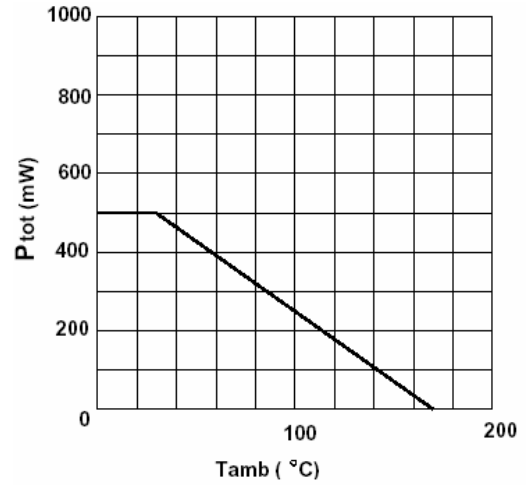
电特性 Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

| 符号<br>Symbols | 参数<br>Parameter         | 测试条件<br>Test Condition | 界限 Limits |       | 单位<br>Unit |
|---------------|-------------------------|------------------------|-----------|-------|------------|
|               |                         |                        | Min       | Max   |            |
| BV            | 反向击穿电压                  | IR=100uA               | 100       |       | V          |
|               | Breakdown Voltage       | IR=5uA                 | 75        |       |            |
| IR            | 反向漏电流                   | VR=20V                 | ---       | 25    | nA         |
|               | Reverse Leakage Current | VR=75                  | ---       | 1     | uA         |
| VF            | 正向电压<br>Forward Voltage | IF=150mA               | ---       | 1.25  | V          |
|               |                         | IF=50mA                | ---       | 1.00  |            |
|               |                         | IF=10mA                | ---       | 0.855 |            |
|               |                         | IF=1.0mA               | ---       | 0.715 |            |
| TRR           | 反向恢复时间                  | IF= 10mA, IR=60mA      | ---       | 4     | nS         |
|               | Reverse Recovery Time   | RL=100Ω, IRR=1mA       |           |       |            |
| C             | 结电容                     | VR=0V, f=1MHZ          | ---       | 2     | pF         |
|               | Capacitance             |                        |           |       |            |

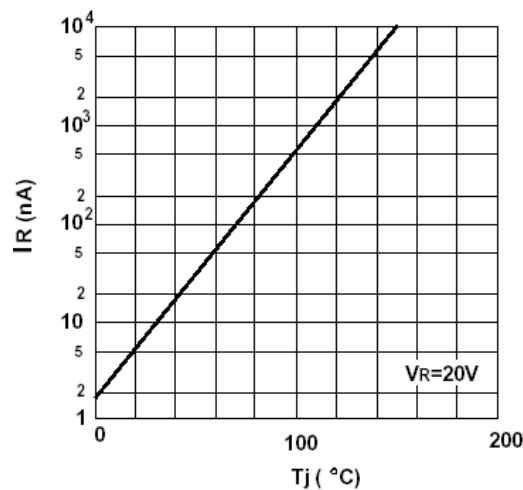
Forward characteristics



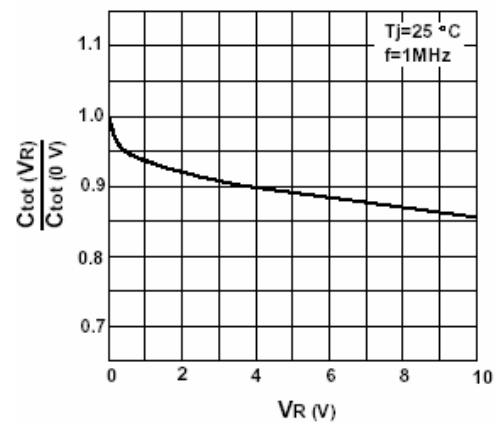
Admissible power dissipation versus ambient temperature



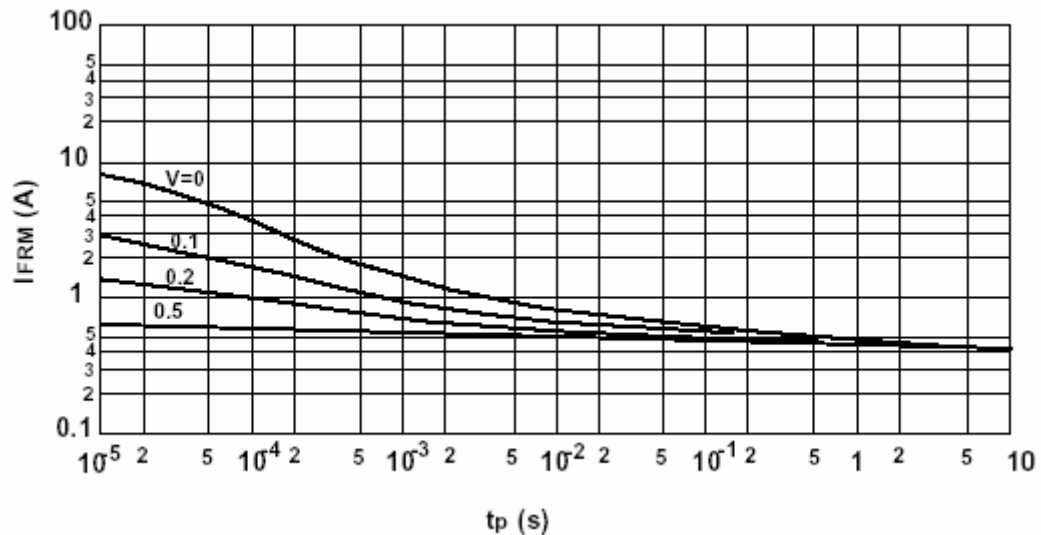
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage

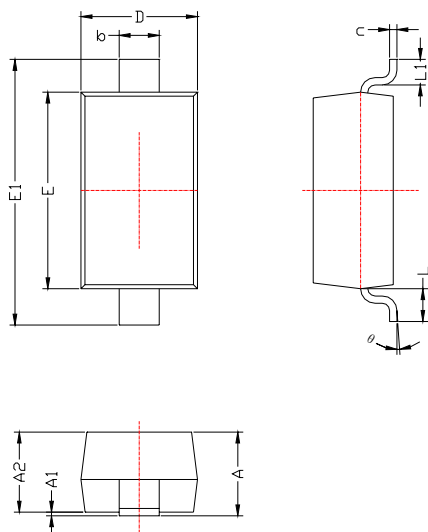


Admissible repetitive peak forward current VS. pulse duration



## SOD-123 PACKAGE OUTLINE

Plastic surface mounted package

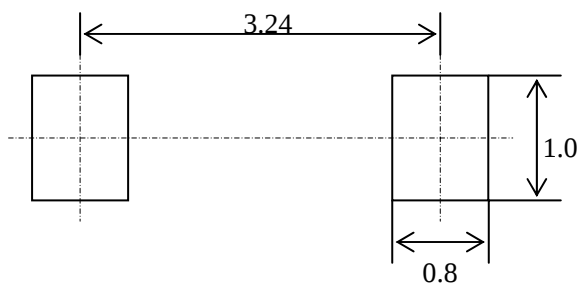


| SYMBOL | DIMENSIONS |       |
|--------|------------|-------|
|        | MIN.       | MAX.  |
| A      | 1.050      | 1.250 |
| A1     | 0.000      | 0.100 |
| A2     | 1.050      | 1.150 |
| b      | 0.450      | 0.650 |
| c      | 0.080      | 0.150 |
| D      | 1.500      | 1.700 |
| E      | 2.600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

## 焊盘设计参考

Precautions: PCB Design

Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs



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

技术要求:

- 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

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