

SOD-123

SOD-123 贴片塑封二极管

500mW SOD-123 Fast Switching Diode



MARKING: T4

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 400mW
- 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 Flat Lead 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

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 _R | 75 | V |
| 反向峰值电压 Peak Reverse Voltage | V _{RM} | 100 | V |
| 功率消耗 Power Dissipation | P _d | 500 | mW |
| 工作结温 Operating junction temperature | T _j | 150 | |
| 存储温度 Storage temperature range | T _s | -65-+150 | |
| 反向工作电压 Working Inverse Voltage | W _{IV} | 75 | V |
| 平均整流电流 Average Rectified 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 | I _{FSM} | 2.0 | A |

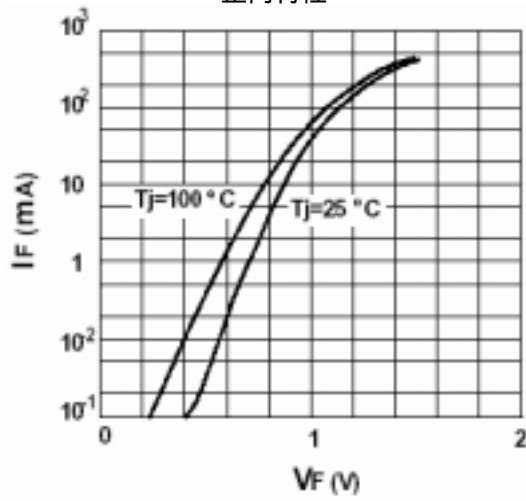
@tp=1us; TA=25

Valid provided that electrodes are kept at ambient temperature.

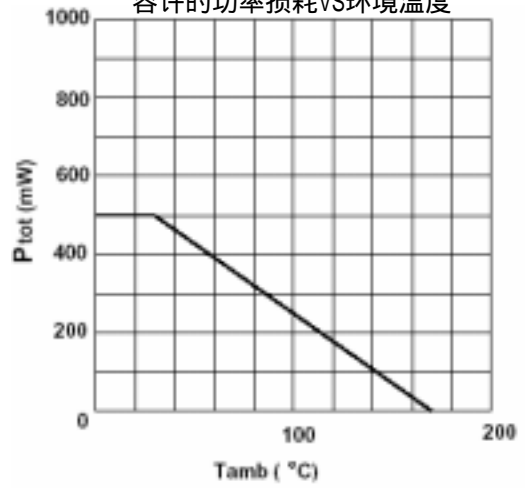
电特性 Electrical Characteristics (Ratings at 25 ambient temperature unless otherwise specified).

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

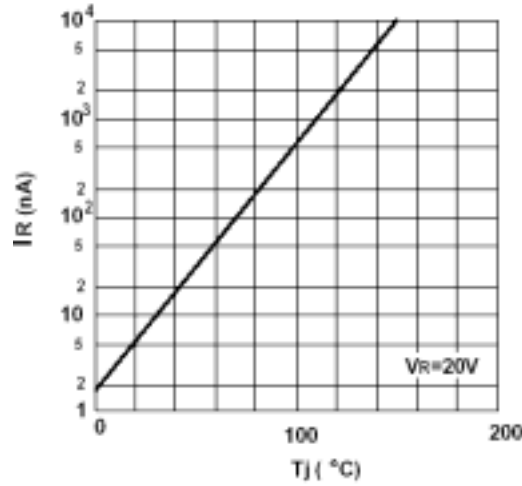
Forward characteristics
正向特性



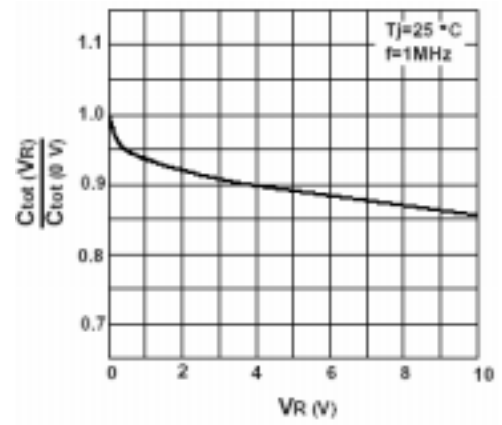
Admissible power dissipation versus ambient temperature
容许的功率损耗VS环境温度



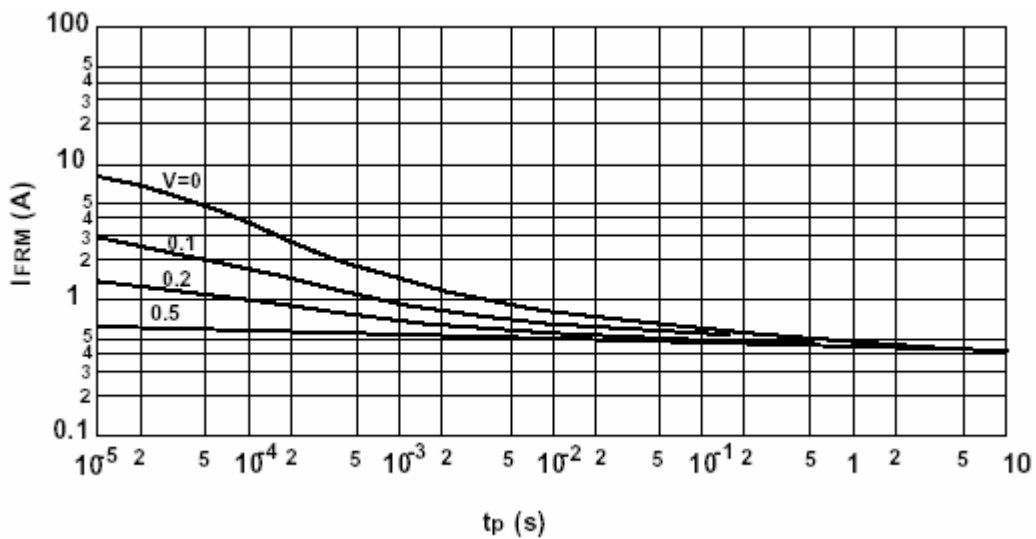
Leakage current versus junction temperature
漏电流VS结温



Reverse capacitance VS. reverse voltage
反向电容VS反向电压

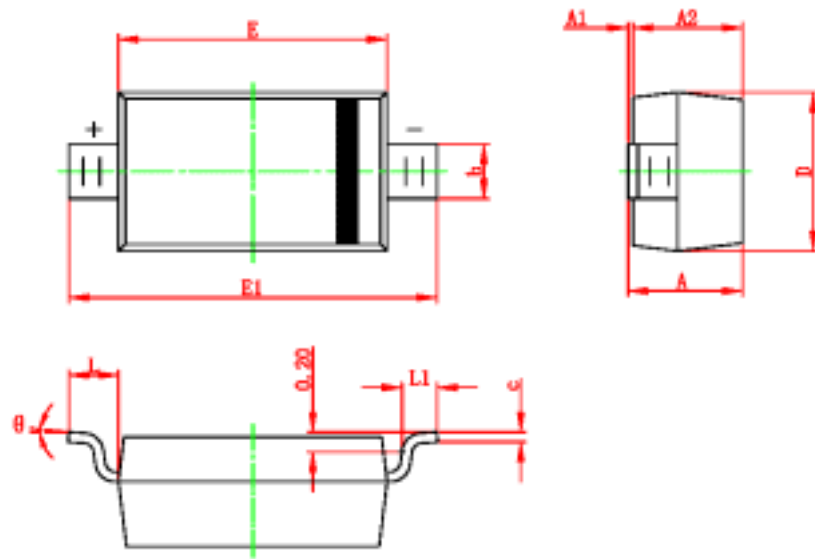


Admissible repetitive peak forward current VS. pulse duration
容许的可重复性正向峰值电流VS脉冲持续时间



SOD-123 PACKAGE OUTLINE SOD-123封装外形

Plastic surface mounted package

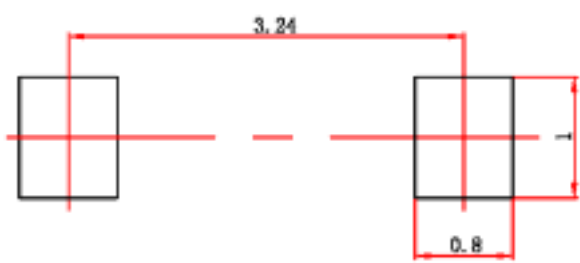


| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 1.050 | 1.250 | 0.041 | 0.049 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 1.050 | 1.150 | 0.041 | 0.045 |
| b | 0.450 | 0.650 | 0.018 | 0.026 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.500 | 1.700 | 0.059 | 0.067 |
| E | 2.800 | 2.800 | 0.102 | 0.110 |
| E1 | 3.550 | 3.850 | 0.140 | 0.152 |
| L | 0.500 REF | | 0.020 REF | |
| L1 | 0.250 | 0.450 | 0.010 | 0.018 |
| θ | 0° - 8° | | 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: ±0.05
- 3, 所有单位: mm