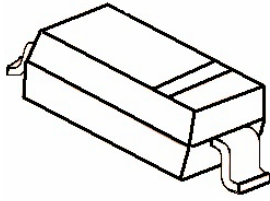


SOD-123

500mW SOD-123 Fast Switching Diode



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°C 除非另有规定)

Maximum Ratings & 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 | °C |
| 存储温度 Storage temperature range | T _s | -55-+150 | °C |
| 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 |

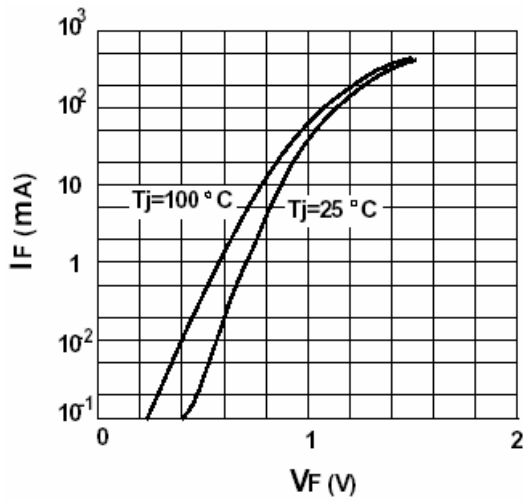
@tp=1us; TA=25°C

Valid provided that electrodes are kept at ambient temperature.

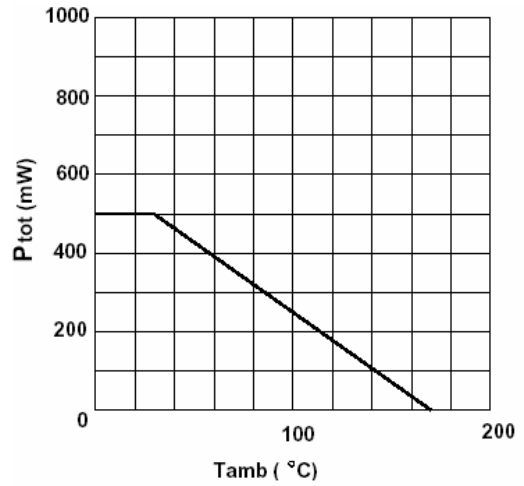
电特性 **Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified).

| 符号 Symbols | 参数 Parameter | 测试条件 Test Condition | 界限 Limits | | 单位 Unit |
|---------------|-------------------------|------------------------|-----------|-------|------------|
| | | | Min | Max | |
| 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 Forward Voltage | IF=150mA | --- | 1.25 | V |
| | | IF=50mA | --- | 1.00 | |
| | | IF=10mA | --- | 0.855 | |
| 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 | | | | |

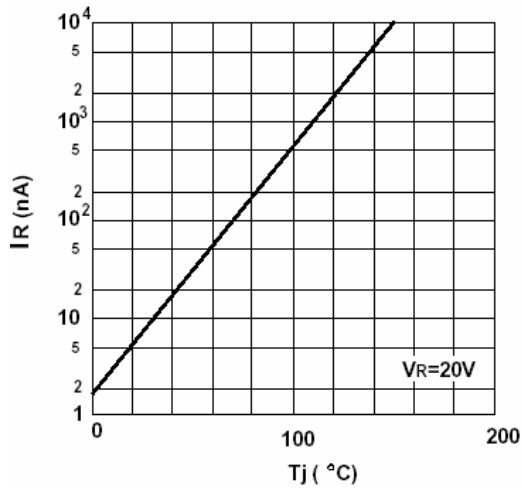
Forward characteristics



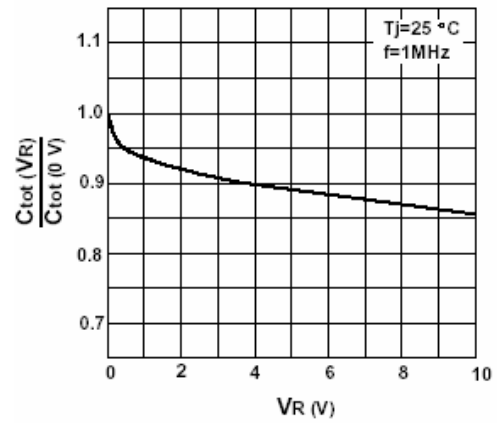
Admissible power dissipation versus ambient temperature



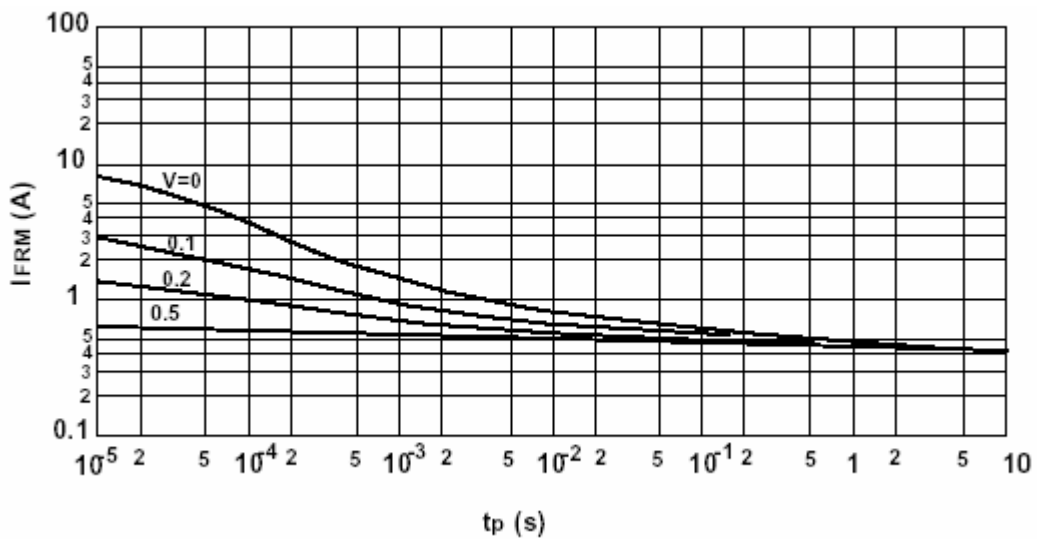
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage

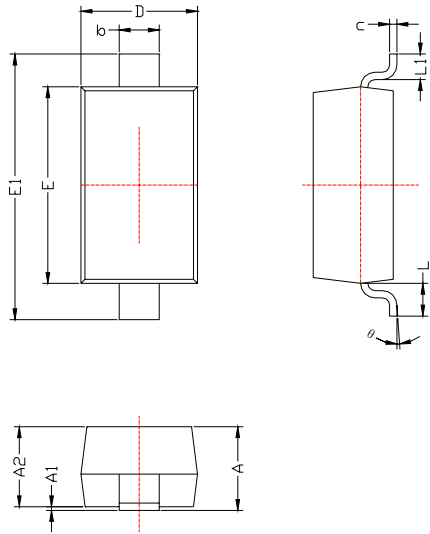


Admissible repetitive peak forward current VS. pulse duration



SOD-123 PACKAGE OUTLINE

Plastic surface mounted package

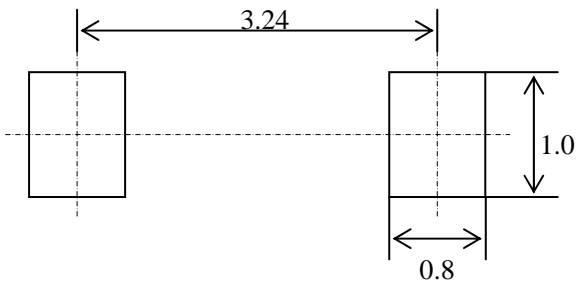


| SYMBOL | DIMENSIONS | |
|----------|------------|-------|
| | MIN. | MAX. |
| A | 1.050 | 1.250 |
| A1 | 0.000 | 0.100 |
| A2 | 1.050 | 1.150 |
| b | 0.450 | 0.650 |
| c | 0.080 | 0.150 |
| D | 1.500 | 1.700 |
| E | 2.600 | 2.800 |
| E1 | 3.550 | 3.850 |
| L | 0.500REF | |
| L1 | 0.250 | 0.450 |
| 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: ± 0.05
- 3, 所有单位: mm