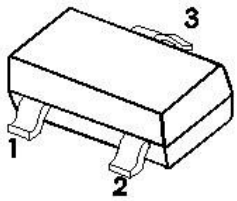
# SOT-23

# 开关二极管
# Switching Diode

| 产品特性总结Product Summary | |
|---|---|
| VR@100uA | ＞70V |
| IR@70V | ＜1uA |
| trr | ＜9nS |

**印字Marking：** A7


**脚位定义Pin Definition**



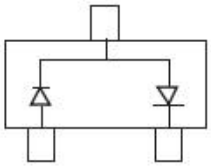

## 特征 Features

- 极低的漏电流Very Low Leakage Current
- 低反向恢复时间Low Reverse Recovery Time
- 无卤封装Halogen-free Package
- 表贴型封装Surface Mount Package
- 环氧树脂UL易燃等级Epoxy UL: 94V-0

## 应用 Applications

- 低漏电应用Low Leakage Current Applications
- 高速开关应用High Speed Switch Applications

**等效电路Equivalent circuit**



**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 |
|---|---|---|---|
| 尖峰反向电压Peak Reverse Voltage | VRM | 70 | V |
| 反向电压DC Reverse Voltage | VR | 70 | V |
| 尖峰反向电流Peak Reverse Current | IFM | 200 | mA |
| 平均整流电流Average Rectified Current | IO | 100 | mA |
| 直流正向电流DC Forward Current | IF | 100 | mA |
| 工作结温Junction Temperature | Tj | 150 | ℃ |
| 储存温度范围Storage Temperature Range | TSTG | -55 to+150 | ℃ |
| 结环热阻Thermal Resistance Junction to Ambient Air (Note 1) | RθJA | 670 | ℃/W |

**电特性** (TA = 25℃ 除非另有规定)

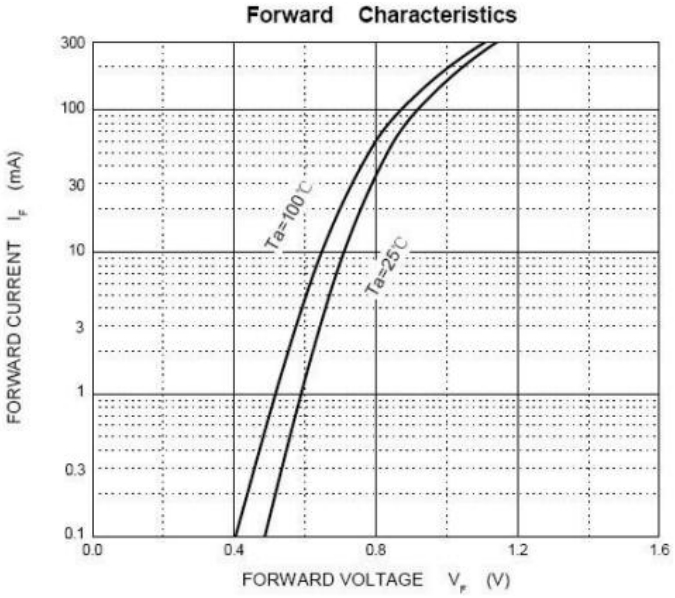
**Electrical Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified).

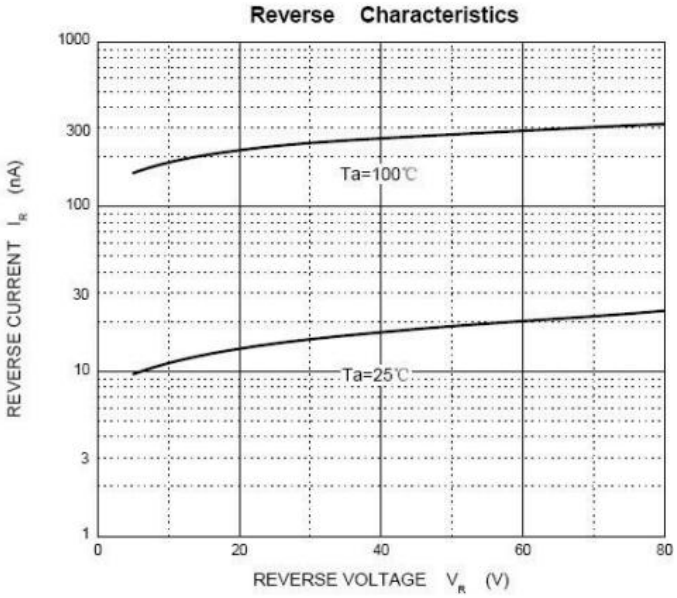
| 参数 Parameters | 符号 Symbol | 测试条件 Test Condition | 最小值 Min | 典型值 Typ | 最大值 Max | 单位Unit |
|---|---|---|---|---|---|---|
| 反向电压 Reverse Breakdown Voltage (Note 3) | $V_{(BR)R}$ | $I_R$ = 100uA | 70 | | | V |
| 正向电压Forward Voltage | $V_F$ | $I_F$ = 1.0mA | | | 0.715 | V |
| | | $I_F$= 10mA | | | 0.855 | |
| | | $I_F$ = 50mA | | | 1.1 | |
| | | $I_F$ = 100mA | | | 1.3 | |
| 反向漏电流Leakage Current (Note 3) | $I_R$ | $V_R$ = 70V | | | 1.0 | uA |
| 总电容Total Capacitance | $C_T$ | $V_R$ = 0, f = 1.0MHz | | | 4 | pF |
| 反向恢复时间Reverse Recovery Time | trr | $I_F$ = 10mA,$V_R$=1V, $R_L$ = 100Ω | | | 9 | nS |
| 正向恢复电压Forward Recovery Voltage | $V_{fr}$ | $I_F$=100mA | | | 1.75 | V |

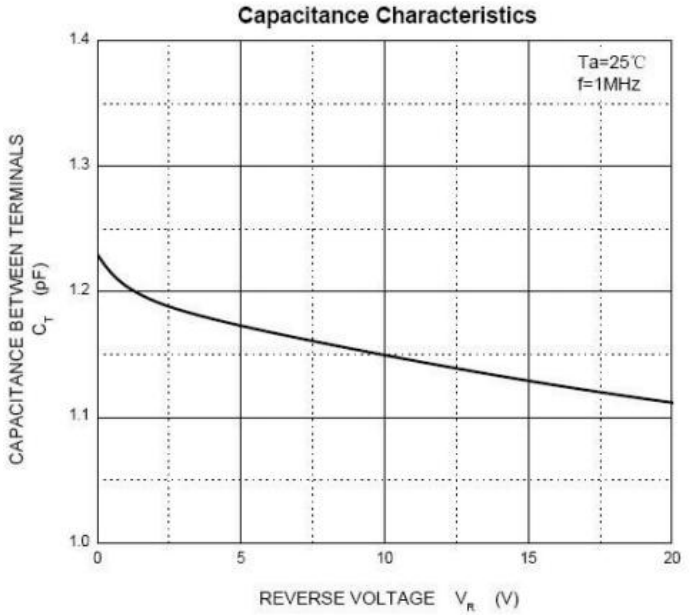
***Notes :**

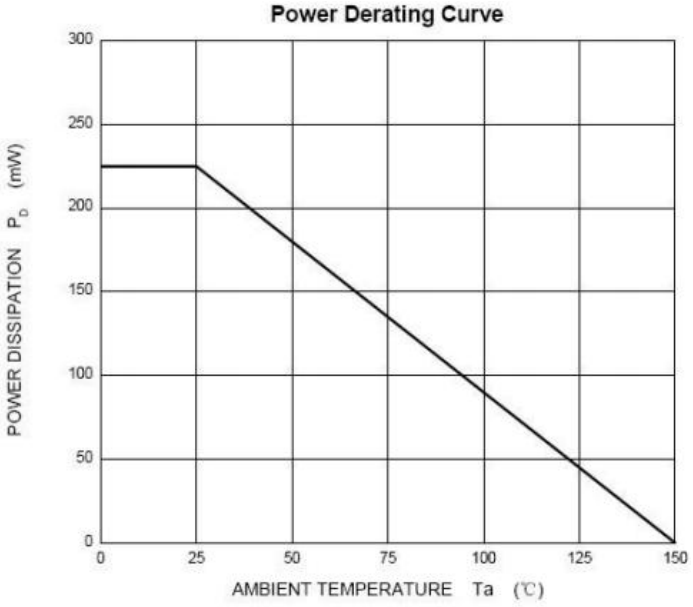
1. Device mounted on FR-4 PC board with recommended pad layout.
2. No purposefully added lead.
3. Short duration test pulse used to minimize self-heating effec..

## 典型特性曲线 Typical characteristics

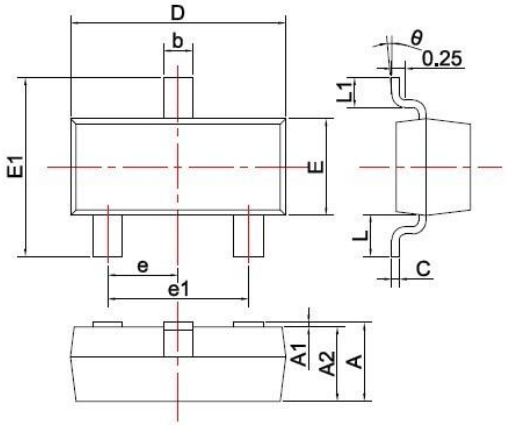


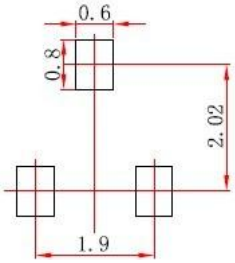
## 封装外形图 SOT-23 Package Outline Dimensions




| SYMBOL | DIMENSIONS | |
|---|---|---|
| | MIN. | MAX. |
| A | 0.900 | 1.150 |
| A1 | 0.000 | 0.100 |
| A2 | 0.900 | 1.050 |
| b | 0.300 | 0.500 |
| c | 0.080 | 0.150 |
| D | 2.800 | 3.000 |
| E | 1.200 | 1.400 |
| E1 | 2.250 | 2.550 |
| e | 0.950TYP | |
| e1 | 1.800 | 2.000 |
| L | 0.550REF | |
| L1 | 0.300 | 0.500 |
| θ | 0° | 8° |

Unit: mm

## 焊盘设计参考Precautions: PCB Design




Note:
1.Controlling dimension:In millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.