Leading Circuit Protection
Products and Solutions

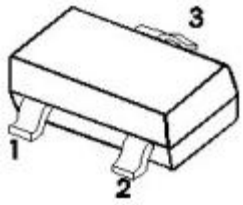
# SOT-23 贴片塑封二极管

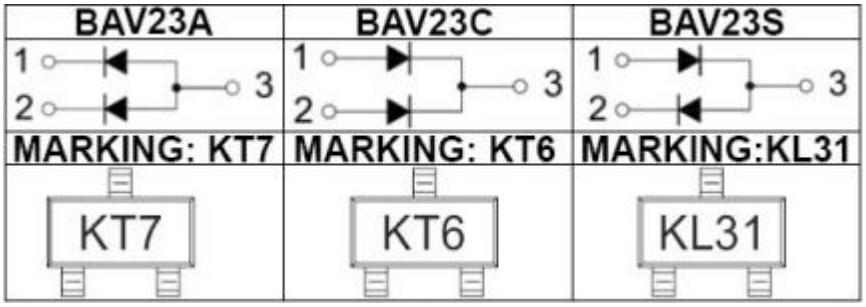
## SOT-23 Plastic-Encapsulate Switching Diode

## BAV23/A/C/S

## Features

- 开关速度小于 50nS;Fast Switching Device (TRR <50 nS).
- 最大功率耗散 350mW; Power Dissipation of 350mW.
- 高稳定性和可靠性。High Stability and High Reliability.
- 反向漏电流小。Low reverse leakage.
- 封 装：SOT-23 封 装 SOT-23 Small Outline Plastic Package.
- 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.)

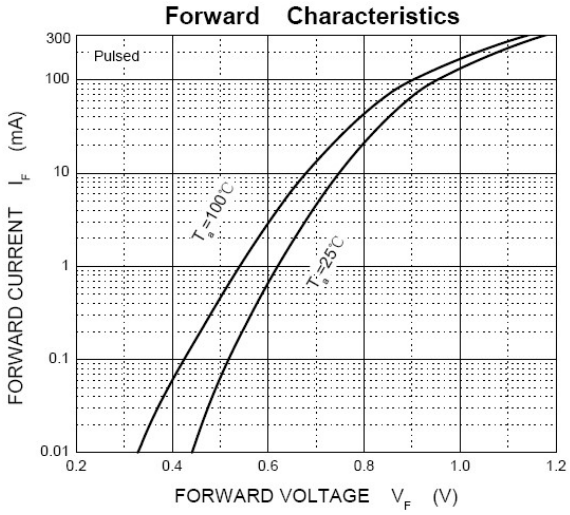
| 参数 Parameters | 符号 Symbol | 数值 Value | 单位 Unit |
|---|---|---|---|
| 反向电压 Reverse Voltage | $V_R$ | 250 | V |
| 反向峰值电压 Peak Repetitive Reverse Voltage | $V_{RRM}$ | 175 | V |
| 功率消耗 Power Dissipation | Pd | 350 | mW |
| 平均整流输出电流 Average Rectified Output Current | Io | 225 | mA |
| 正向(不重复)浪涌电流 Non-Repetitive Peak Forward Surge Current @t=8.3ms; TA=25℃ | $I_{FSM}$ | 1.7 | A |
| 工作结温 Operating junction temperature | Tj | 150 | ℃ |
| 存储温度 Storage temperature range | Ts | -55-+150 | ℃ |
| 热阻抗 Thermal Resistance from Junction to Ambient | $R_{\theta JA}$ | 357 | ℃/W |

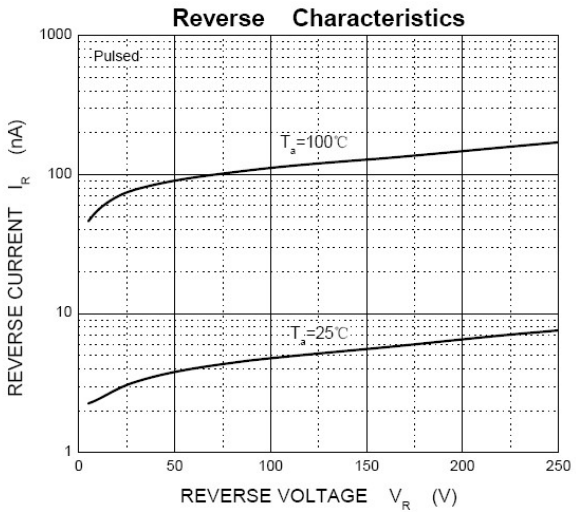
Valid provided that electrodes are kept at ambient temperature.

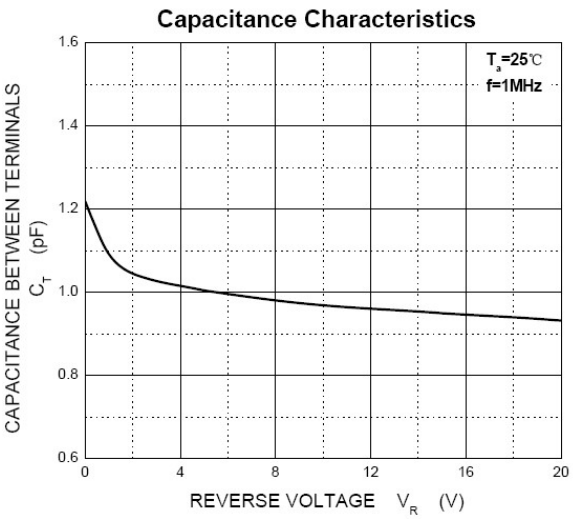
## 电特性 Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

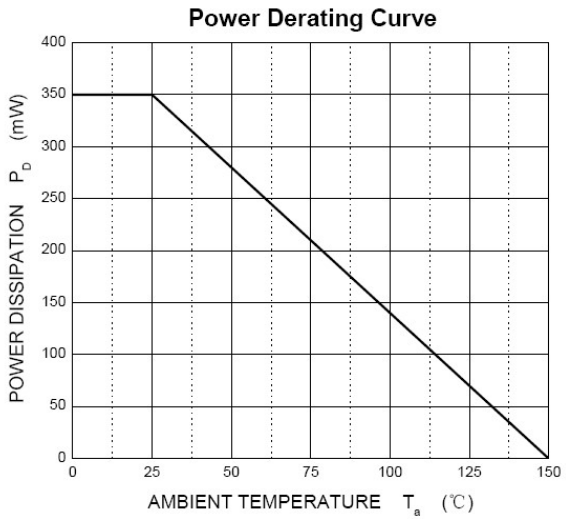
| 符号 Symbols | 参数 Parameter | 测试条件 Test Condition | 界限 Limits | | 单位 Unit |
|---|---|---|---|---|---|
| | | | Min | Max | |
| V(BR) | 反向电压 Reverse Voltage | $I_R$=100uA | 250 | | V |
| IR | 反向漏电电流 Reverse Leakage Current | $V_R$=200V | --- | 0.1 | uA |
| VF | 正向电压 Forward Voltage | $I_F$=100mA | --- | 1.00 | V |
| | | $I_F$=200mA | --- | 1.25 | |
| TRR | 反向恢复时间 Reverse Recovery Time | $I_F$= $I_R$=30mA<br>$R_L$=100Ω<br>$I_{RR}$=0.1 X $I_R$ | --- | 50 | nS |
| CT | 结电容 Capacitance | $V_R$=0V, f=1MHZ | --- | 5 | pF |

## Typical Characteristics



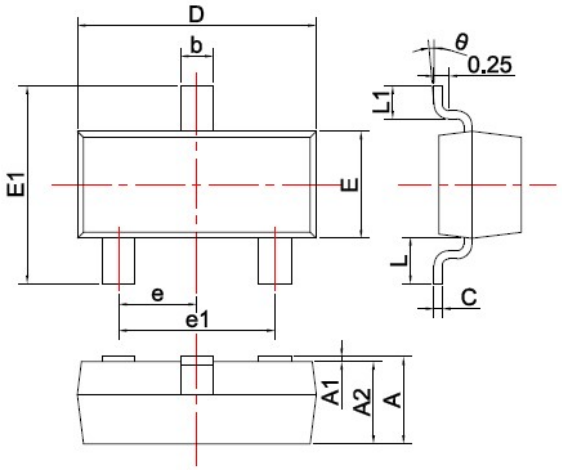



## SOT-23 PACKAGE OUTLINE

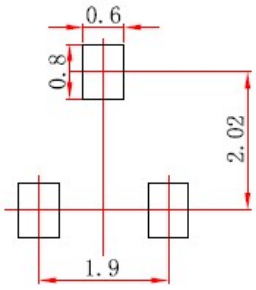
**Plastic surface mounted package**




| 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(Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)




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