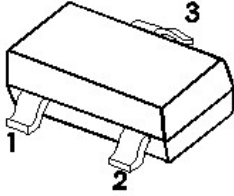


SOT-23

**SOT-23 Plastic-Encapsulate Switching Diode**

**特征 Features**

- 开关速度小于 6nS; Fast Switching Device (TRR <6nS)
- 最大功率耗散 225mW; Power Dissipation of 225mW
- 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: 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

|   |   |   |
|---|---|---|
| <b>BAW56</b><br><br><b>MARKING:A1</b><br> | <b>BAV70</b><br><br><b>MARKING:A4</b><br> | <b>BAV99</b><br><br><b>MARKING:A7</b><br> |
|---|---|---|

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.)

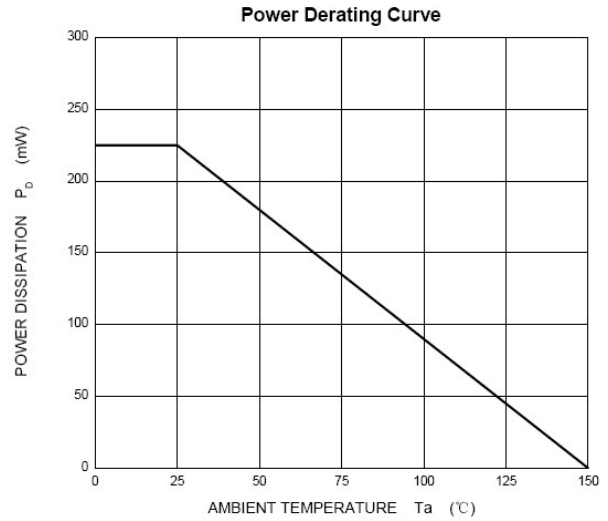
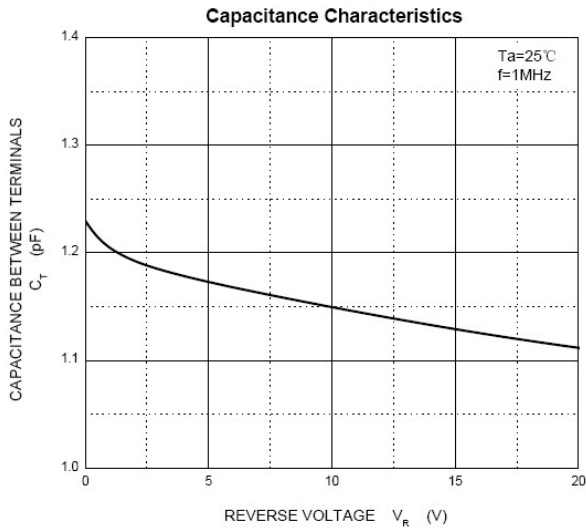
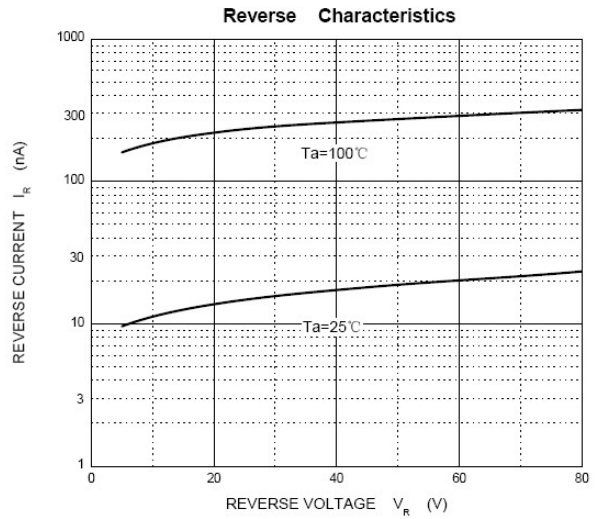
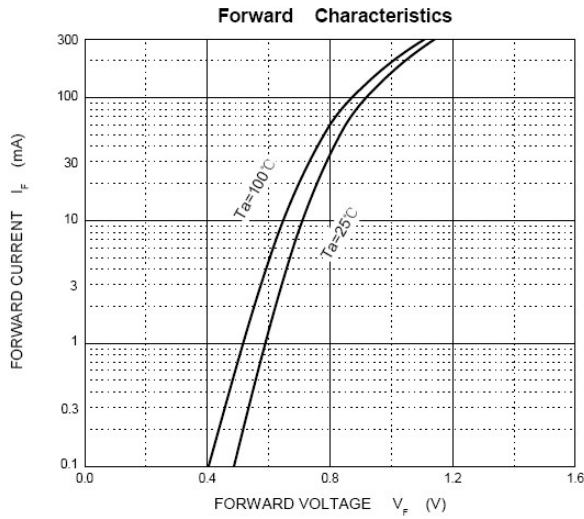
| 参数 Parameters  | 符号 Symbol | 数值 Value | 单位 Unit |
|--|-----------|----------|---------|
| 反向电压 Reverse Voltage                                       | VR        | 100      | V       |
| 功率消耗 Power Dissipation                                     | Pd        | 225      | mW      |
| 工作结温 Operating junction temperature                        | Tj        | 150      | °C      |
| 存储温度 Storage temperature range                             | Ts        | -65-+150 | °C      |
| 平均整流电流 Average Rectified Current                           | IO        | 200      | mA      |
| 正向(不重复)电流 Non-repetitive Peak Forward Current              | IFM       | 400      | mA      |
| 正向(不重复)浪涌电流 Peak Forward Surge Current<br>@tp=1ms; TA=25°C | IFSM      | 2.0      | A       |
| 典型热阻<br>Typical thermal resistance                         | RθJA      | 500      | °C/W    |

Valid provided that electrodes are kept at ambient temperature.

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

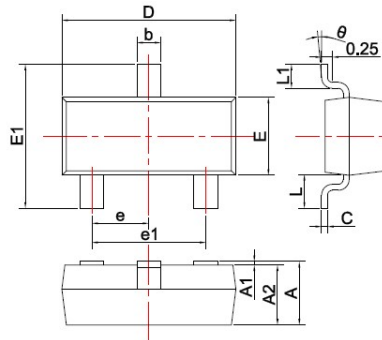
| 符号 Symbols | 参数 Parameter                     | 测试条件 Test Condition               | 界限 Limits |       | 单位 Unit |
|------------|----------------------------------|-----------------------------------|-----------|-------|---------|
|            |                                  |                                   | Min       | Max   |         |
| VRB        | 反向击穿电压<br>Reverse Voltage        | IB=100uA                          | 100       | ---   | V       |
| IR         | 反向漏电流<br>Reverse Leakage Current | VR=100V                           | ---       | 1.0   | uA      |
| VF         | 正向电压<br>Forward Voltage          | IF=1mA                            | ---       | 0.715 | V       |
|            |                                  | IF=10mA                           | ---       | 0.855 |         |
|            |                                  | IF=50mA                           | ---       | 1.00  |         |
|            |                                  | IF=150mA                          | ---       | 1.25  |         |
| TRR        | 反向恢复时间<br>Reverse Recovery Time  | IF= IR=10mA,RL=100Ω<br>IRR=0.1xIR | ---       | 6     | nS      |
| CT         | 结电容<br>Capacitance               | VR=0V, f=1MHZ                     | ---       | 1.5   | pF      |

**Typical Characteristics**



**SOT-23 PACKAGE OUTLINE**

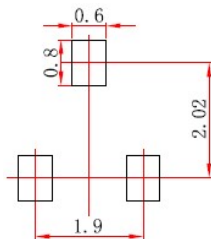
Plastic surface mounted package



| 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        | 2.600      | 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 |
| $\theta$ | 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:
- Controlling dimension: In millimeters.
  - General tolerance:  $\pm 0.05\text{mm}$ .
  - The pad layout is for reference purposes only.