

SOD-123 Switching Diode 开关二极管

■ **Features 特点**

Fast Switching Speed 快的开关速度
Surface mount device 表面贴装器件
High Conductance 高电导率
Case 封装:SOD-123



■ **Maximum Rating 最大额定值**

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

| Characteristic 特性参数 | Symbol 符号 | BAV19W | BAV20W | BAV21W | Unit 单位 |
|--------------------------------------|-----------------|------------------------------|--------|--------|-----------------------------|
| Peak Reverse Voltage 反向峰值电压 | V_{RRM} | 120 | 200 | 250 | V |
| DC Reverse Voltage 直流反向电压 | V_R | 120 | 200 | 250 | V |
| RMS Reverse Voltage 反向电压均方根值 | $V_{R(RMS)}$ | 100 | 150 | 200 | V |
| Forward Rectified Current 正向整流电流 | I_F | 0.25 | | | A |
| Peak Surge Current 峰值浪涌电流 | I_{FSM} | @1S | 1 | | A |
| | | @1mS | 3 | | |
| | | @1μS | 9 | | |
| Power Dissipation 耗散功率 | P_D | 250 | | | mW |
| Thermal Resistance J-A 结到环境热阻 | $R_{\theta JA}$ | 500 | | | $^{\circ}\text{C}/\text{W}$ |
| Junction/Storage Temperature 结温/储藏温度 | T_J, T_{stg} | -50to+150 $^{\circ}\text{C}$ | | | $^{\circ}\text{C}$ |

■ **Electrical Characteristics 电特性**

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

| Characteristic 特性参数 | Symbol 符号 | BAV19W | BAV20W | BAV21W | Unit 单位 | Condition 条件 |
|-------------------------|-----------|--------|--------|--------|---------------|--------------------------------|
| Reverse Voltage 反向电压 | V_R | 120 | 200 | 250 | V | $I_R=1\text{mA}$ |
| Forward Voltage 正向电压 | V_F | 1.25 | | | V | $I_F=0.2\text{A}$ |
| Reverse Current 反向电流 | I_R | 0.1 | | | μA | $V_R=V_{RRM}$ |
| Reverse Recovery Time | T_{rr} | 50 | | | nS | |
| Diode Capacitance 二极管电容 | C_T | 5 | | | pF | $V_R=4\text{V}, f=1\text{MHz}$ |

■ Typical Characteristic Curve 典型特性曲线

Fig.1 Forward Current Derating Curve

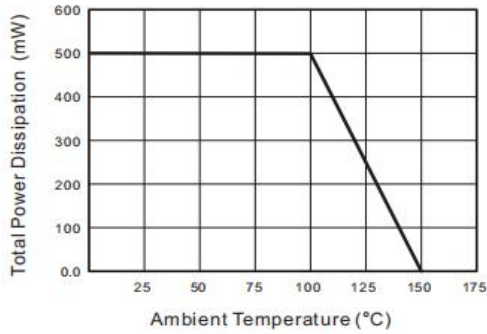


Fig.2 Typical Reverse Characteristics

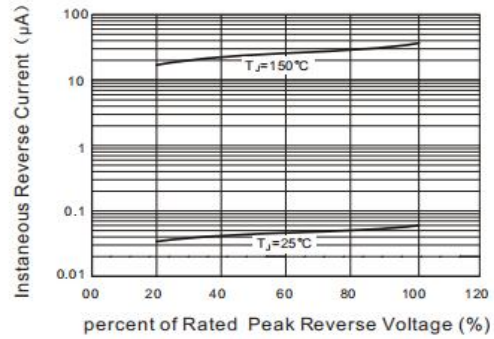


Fig.3 Typical Instaneous Forward Characteristics

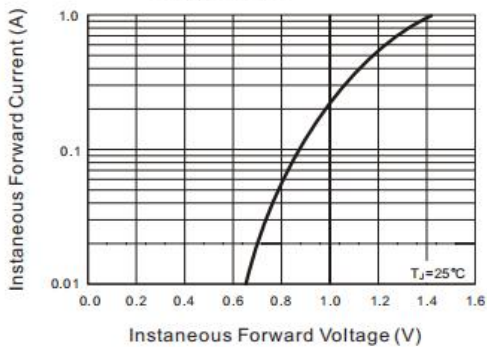
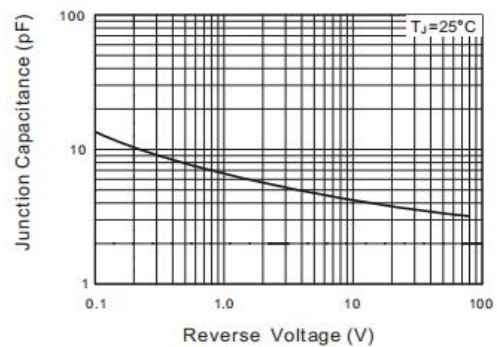
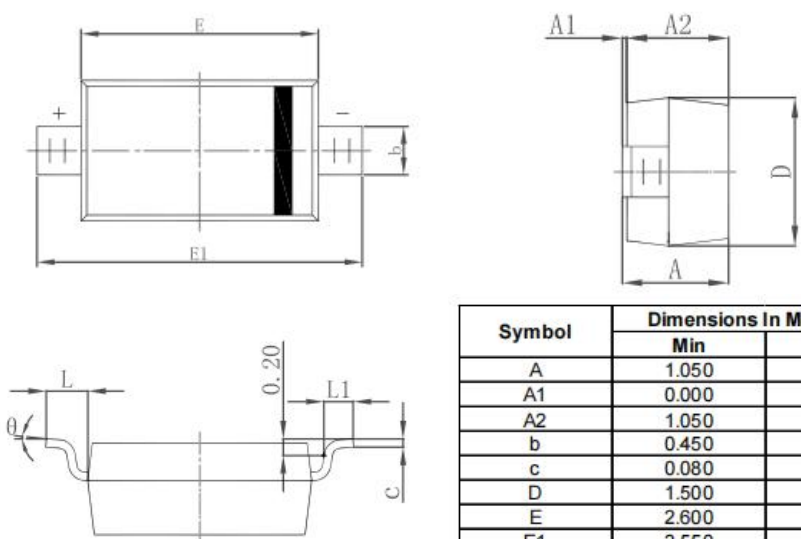


Fig.4 Typical Junction Capacitance



■ Dimension 外形封装尺寸 SOD-123



| 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 | 2.600 | 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° | |