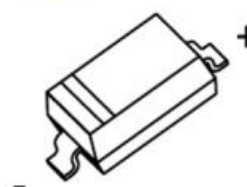


SOD-123 Schottky Barrier Rectifier Diode 肖特基势垒整流二极管

SOD-123



■ Features 特点

Low forward voltage drop 低正向压降
High current capability 高电流能力
Surface mount device 表面贴装器件
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)

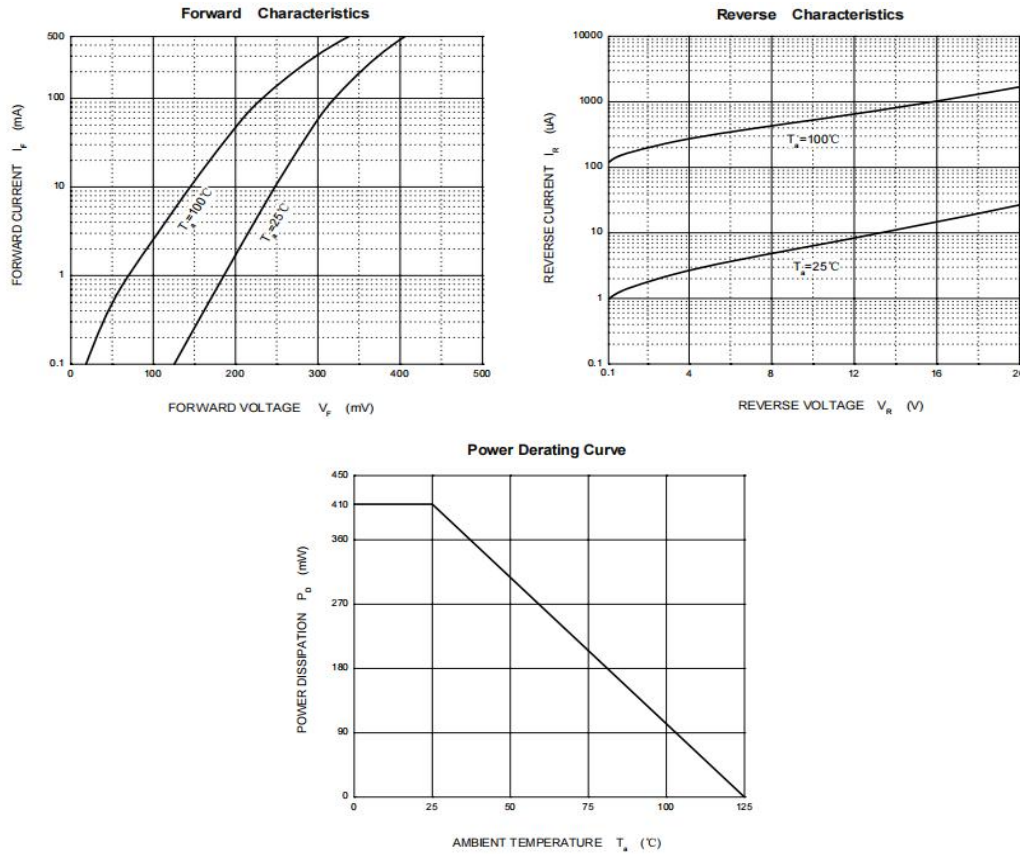
| Characteristic 特性参数 | Symbol 符号 | MBR0520 | MBR0530 | MBR0540 | MBR0560 | MBR0580 | Unit 单位 |
|--------------------------------------|-----------------|------------------------------------|---------|---------|---------|---------|-----------------------------|
| Device Marking 产品印字 | | R2 | R3 | R4 | R6 | R8 | V |
| Peak Reverse Voltage 反向峰值电压 | V_{RRM} | 20 | 30 | 40 | 60 | 80 | V |
| DC Reverse Voltage 直流反向电压 | V_R | 20 | 30 | 40 | 60 | 80 | V |
| RMS Reverse Voltage 反向电压均方根值 | $V_{R(RMS)}$ | 14 | 21 | 28 | 42 | 56 | V |
| Forward Rectified Current 正向整流电流 | I_F | 0.5 | | | | | A |
| Peak Surge Current 峰值浪涌电流 | I_{FSM} | 5.5 | | | | | A |
| Power Dissipation 耗散功率 | P_D | 410 | | | | | mW |
| Thermal Resistance J-A 结到环境热阻 | $R_{\theta JA}$ | 245 | | | | | $^{\circ}\text{C}/\text{W}$ |
| Junction/Storage Temperature 结温/储藏温度 | T_J, T_{stg} | $-50\text{to}+125^{\circ}\text{C}$ | | | | | $^{\circ}\text{C}$ |

■ Electrical Characteristics 电特性

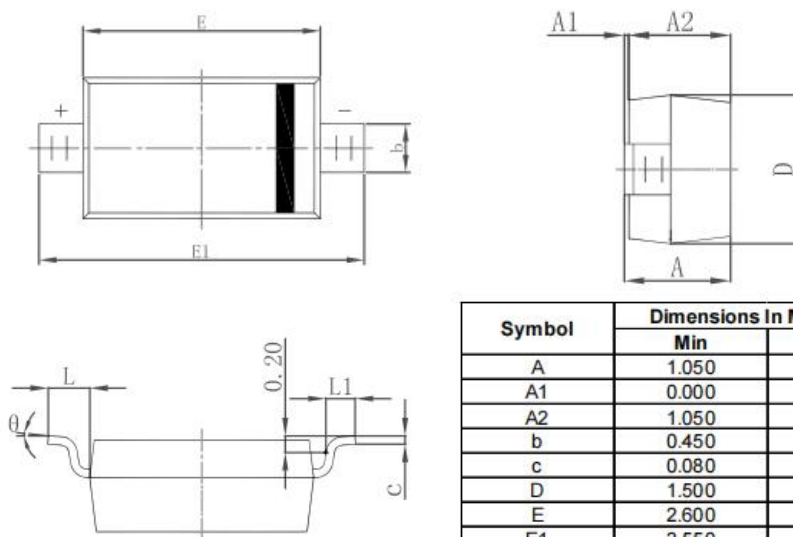
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

| Characteristic 特性参数 | Symbol 符号 | MBR0520 | MBR0530 | MBR0540 | MBR0560 | MBR0580 | Unit 单位 | Condition 条件 |
|-------------------------|-----------|---------|---------|---------|---------|---------|---------------|--------------------------------|
| Reverse Voltage 反向电压 | V_R | 20 | 30 | 40 | 60 | 80 | V | $I_R=1\text{mA}$ |
| Forward Voltage 正向电压 | V_F | 0.45 | 0.55 | 0.55 | 0.7 | 0.8 | V | $I_F=0.5\text{A}$ |
| Reverse Current 反向电流 | I_R | 80 | | | | | μA | $V_R=V_{RRM}$ |
| Diode Capacitance 二极管电容 | C_T | 30 | | | | | pF | $V_R=4\text{V}, f=1\text{MHz}$ |

■ Typical Characteristic Curve 典型特性曲线



■ 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° | |