

**SOD-323 Schottky Barrier Rectifier Diode 肖特基势垒整流二极管**

■ **Features 特点**

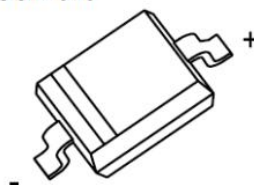
High current capability 高电流能力

Low forward voltage drop 低正向压降

Guard Ring Construction for Transient Protection 瞬态保护环结构

Case 封装:SOD-323

**SOD-323**



■ **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  $25^{\circ}\text{C}$ )

| Characteristic 特性参数                   | Symbol 符号       | B0520WS   | B0530WS | B0540WS | Unit 单位                     |
|---------------------------------------|-----------------|-----------|---------|---------|-----------------------------|
| Device Marking 产品印字                   |                 | SD        | SE      | SF      |                             |
| Peak Reverse Voltage 反向峰值电压           | $V_{RRM}$       | 20        | 30      | 40      | V                           |
| Peak Reverse Working Voltage 反向峰值工作电压 | $V_{RWM}$       | 20        | 30      | 40      | V                           |
| DC Reverse Voltage 直流反向电压             | $V_R$           | 20        | 30      | 40      | V                           |
| RMS Reverse Voltage 反向电压均方根值          | $V_{R(RMS)}$    | 14        | 21      | 28      | 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                | $P_D$           | 200       |         |         | mW                          |
| Thermal Resistance J-A 结到环境热阻         | $R_{\theta JA}$ | 625       |         |         | $^{\circ}\text{C}/\text{W}$ |
| Junction/Storage Temperature 结温/储藏温度  | $T_J, T_{stg}$  | -50to+150 |         |         | $^{\circ}\text{C}$          |

■ **Electrical Characteristics 电特性**

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

| Characteristic 特性参数     | Symbol 符号 | B0520WS      | B0530WS          | B0540WS      | Unit 单位       | Condition 条件                                                                                     |
|-------------------------|-----------|--------------|------------------|--------------|---------------|--------------------------------------------------------------------------------------------------|
| Reverse Voltage 反向电压    | $V_R$     | 20           | 30               | 40           | V             | $I_R=250\mu\text{A}$<br>$I_R=500\mu\text{A}$<br>$I_R=20\mu\text{A}$                              |
| Forward Voltage 正向电压    | $V_F$     | 0.3<br>0.385 | 0.36<br>0.45     | 0.51<br>0.62 | V             | $I_F=0.1\text{A}$<br>$I_F=0.5\text{A}$<br>$I_F=1\text{A}$                                        |
| Reverse Current 反向电流    | $I_R$     | 75<br>200    | 80<br>100<br>500 | 10<br>20     | $\mu\text{A}$ | $V_R=10\text{V}$<br>$V_R=15\text{V}$<br>$V_R=20\text{V}$<br>$V_R=30\text{V}$<br>$V_R=40\text{V}$ |
| Diode Capacitance 二极管电容 | $C_T$     | 170          |                  |              | pF            | $V_R=4\text{V}, f=1\text{MHz}$                                                                   |

## ■ Typical Characteristic Curve 典型特性曲线

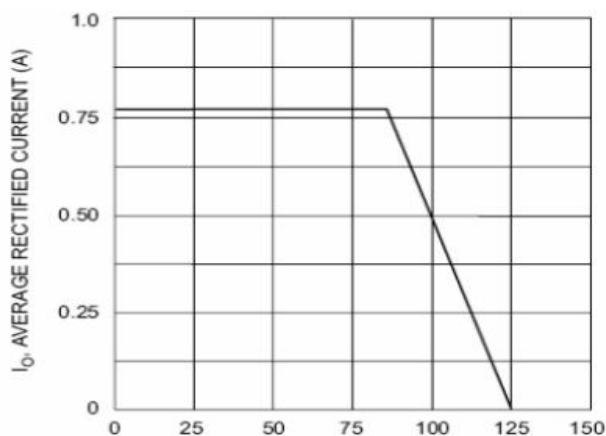


Fig. 1 Forward Current Derating Curve

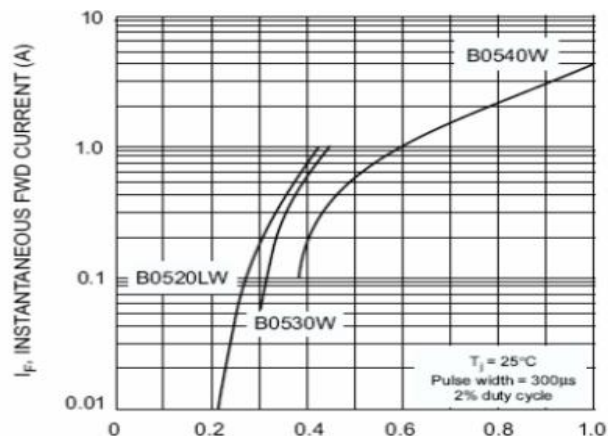


Fig. 2 Typical Forward Characteristics

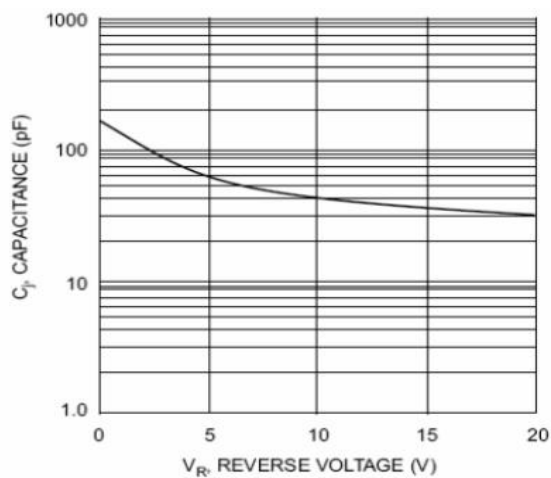
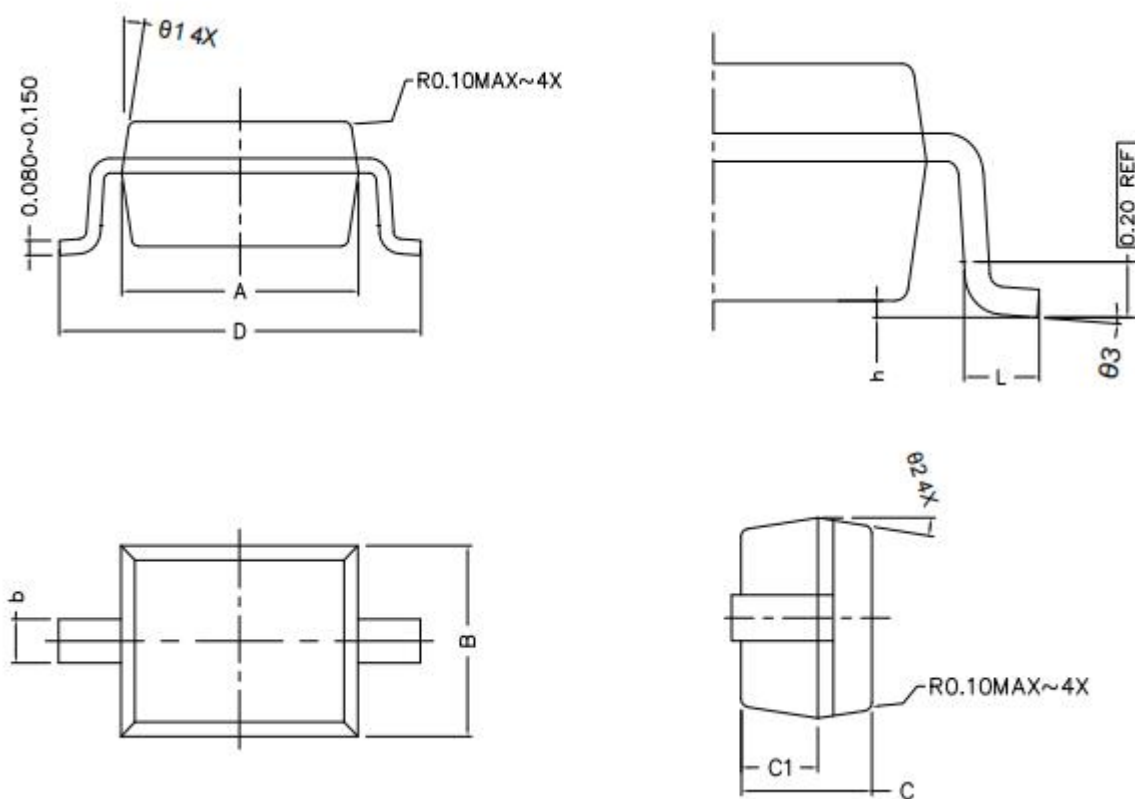


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

■ Dimension 外形封装尺寸



| Symbol      | Dimensions In Millimeters |       | Dimensions In Inches |       |
|-------------|---------------------------|-------|----------------------|-------|
|             | Min                       | Max   | Min                  | Max   |
| A           | 1.600                     | 1.800 | 0.063                | 0.071 |
| B           | 1.200                     | 1.400 | 0.047                | 0.055 |
| C           | 0.750                     | 0.950 | 0.030                | 0.037 |
| C1          | 0.450                     | 0.550 | 0.018                | 0.022 |
| D           | 2.450                     | 2.800 | 0.096                | 0.110 |
| L           | 0.200                     | 0.400 | 0.008                | 0.016 |
| b           | 0.200                     | 0.400 | 0.008                | 0.016 |
| h           | 0.020                     | 0.120 | 0.001                | 0.005 |
| $\ominus 3$ | 0°                        | 8°    | 0°                   | 8°    |