

## 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



### ■Maximum Rating 最大额定值

(T<sub>A</sub>=25°C unless otherwise noted 如无特殊说明, 温度为 25°C)

| Characteristic 特性参数                   | Symbol 符号                         | B0520WS<br>-6AF | B0530WS<br>-6AF | B0540WS<br>-6AF | Unit 单位 |
|---------------------------------------|-----------------------------------|-----------------|-----------------|-----------------|---------|
| Device Marking 产品印字                   |                                   | SD              | SE              | SF              |         |
| Peak Reverse Voltage 反向峰值电压           | V <sub>RRM</sub>                  | 20              | 30              | 40              | V       |
| Peak Reverse Working Voltage 反向峰值工作电压 | V <sub>RWM</sub>                  | 20              | 30              | 40              | V       |
| DC Reverse Voltage 直流反向电压             | V <sub>R</sub>                    | 20              | 30              | 40              | V       |
| RMS Reverse Voltage 反向电压均方根值          | V <sub>R(RMS)</sub>               | 14              | 21              | 28              | V       |
| Forward Rectified Current 正向整流电流      | I <sub>F</sub>                    | 0.5             |                 |                 | A       |
| Peak Surge Current 峰值浪涌电流             | I <sub>FSM</sub>                  | 5.5             |                 |                 | A       |
| Power Dissipation 耗散功率                | P <sub>D</sub>                    | 200             |                 |                 | mW      |
| Thermal Resistance J-A 结到环境热阻         | R <sub>θJA</sub>                  | 625             |                 |                 | °C/W    |
| Junction/Storage Temperature 结温/储藏温度  | T <sub>J</sub> , T <sub>stg</sub> | -50to+150       |                 |                 | °C      |

### ■Electrical Characteristics 电特性

(T<sub>A</sub>=25°C unless otherwise noted 如无特殊说明, 温度为 25°C)

| Characteristic 特性参数     | Symbol 符号      | B0520WS<br>-6AF | B0530WS<br>-6AF  | B0540WS<br>-6AF | Unit 单位 | Condition 条件                                                                                                    |
|-------------------------|----------------|-----------------|------------------|-----------------|---------|-----------------------------------------------------------------------------------------------------------------|
| Reverse Voltage 反向电压    | V <sub>R</sub> | 20              | 30               | 40              | V       | I <sub>R</sub> =250μA<br>I <sub>R</sub> =500μA<br>I <sub>R</sub> =20μA                                          |
| Forward Voltage 正向电压    | V <sub>F</sub> | 0.3<br>0.385    | 0.36<br>0.45     | 0.51<br>0.62    | V       | I <sub>F</sub> =0.1A<br>I <sub>F</sub> =0.5A<br>I <sub>F</sub> =1A                                              |
| Reverse Current 反向电流    | I <sub>R</sub> | 75<br>200       | 80<br>100<br>500 | 10<br>20        | μA      | V <sub>R</sub> =10V<br>V <sub>R</sub> =15V<br>V <sub>R</sub> =20V<br>V <sub>R</sub> =30V<br>V <sub>R</sub> =40V |
| Diode Capacitance 二极管电容 | C <sub>T</sub> | 170             |                  |                 | pF      | V <sub>R</sub> =4V, f=1MHz                                                                                      |

■ Typical Characteristic Curve 典型特性曲线

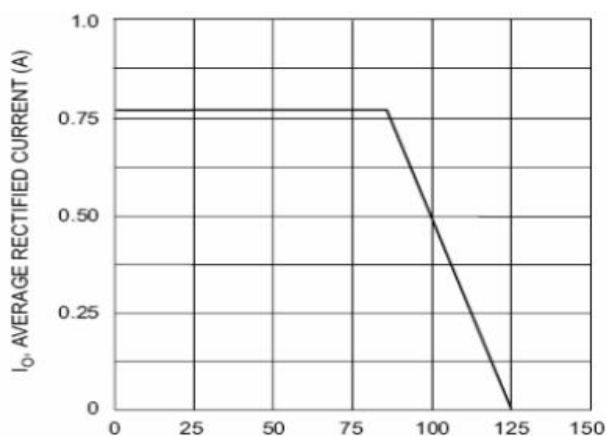


Fig. 1 Forward Current Derating Curve

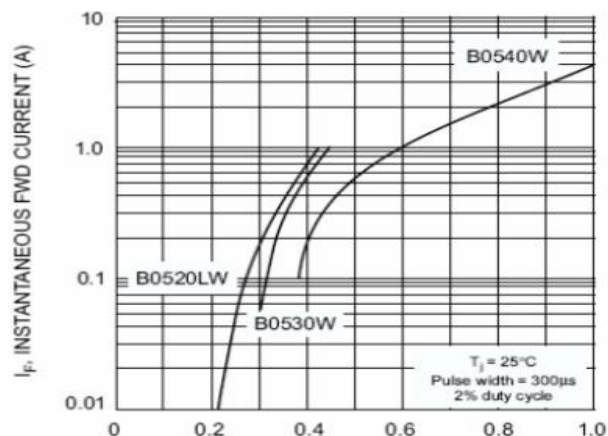


Fig. 2 Typical Forward Characteristics

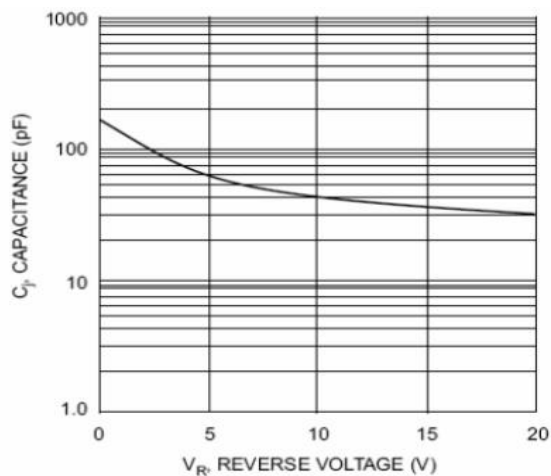
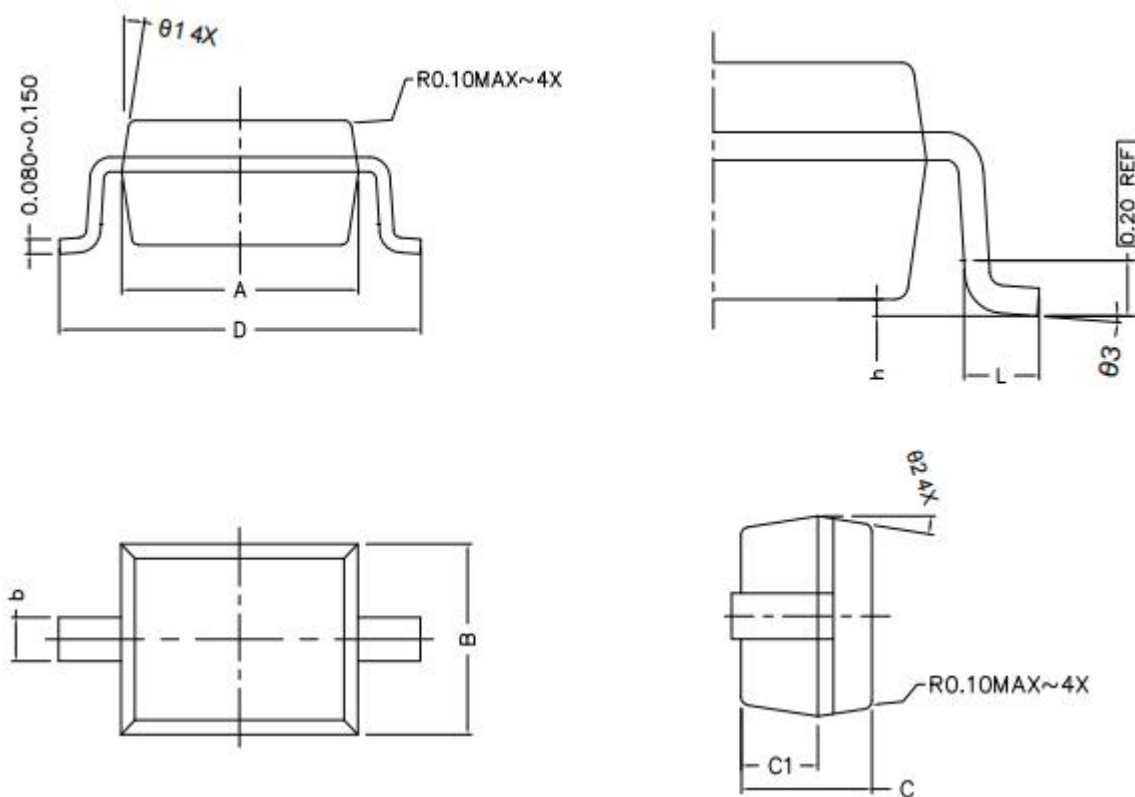


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

■ **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 |
| θ 3    | 0°                        | 8°    | 0°                   | 8°    |