



# 安徽富信半导体科技有限公司

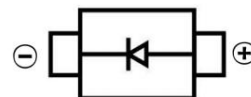
ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

1A-7A-SOD-123

## SOD-123 General Purpose Rectifier Diode 通用整流二极管

### ■Features 特点

- Low forward voltage drop 低正向压降
- Low reverse leakage current 低反向漏电流
- High surge current capability 高浪涌电流能力
- 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  $25^{\circ}\text{C}$ )

| Characteristic<br>特性参数                      | Symbol<br>符号    | 1N40<br>01W   | 1N40<br>02W | 1N40<br>03W | 1N40<br>04W | 1N40<br>05W | 1N40<br>06W | 1N40<br>07W | Unit<br>单位                  |
|---|-----------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------|
| Marking 印字                                  |                 | 1A  | 2A          | 3A          | 4A          | 5A          | 6A          | 7A          |                             |
| Peak Reverse Voltage<br>反向峰值电压              | $V_{RRM}$       | 50  | 100         | 200         | 400         | 600         | 800         | 1000        | V                           |
| DC Reverse Voltage<br>直流反向电压                | $V_R$           | 50  | 100         | 200         | 400         | 600         | 800         | 1000        | V                           |
| RMS Reverse Voltage<br>反向电压均方根值             | $V_{R(RMS)}$    | 35  | 70          | 140         | 280         | 420         | 560         | 700         | V                           |
| Forward Rectified Current<br>正向整流电流         | $I_F$           | 1   |             |             |             |             |             |             | A                           |
| Peak Surge Current<br>峰值浪涌电流                | $I_{FSM}$       | 25  |             |             |             |             |             |             | A                           |
| Thermal Resistance J-A<br>结到环境热阻            | $R_{\theta JA}$ | 35  |             |             |             |             |             |             | $^{\circ}\text{C}/\text{W}$ |
| Junction and Storage Temperature<br>结温和储藏温度 | $T_J, T_{stg}$  | 150 $^{\circ}\text{C}$ , -55to+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<br>特性参数   | Symbol<br>符号 | Min<br>最小值 | Typ<br>典型值   | Max<br>最大值 | Unit<br>单位    | Test Condition<br>测试条件               |
|--|--------------|------------|--------------|------------|---------------|--------------------------------------|
| Forward Voltage<br>正向电压  | $V_F$        |            | 0.92<br>0.98 | 1.1        | V             | $I_F=0.5\text{A}$<br>$I_F=1\text{A}$ |
| Reverse Current( $T_A=25^{\circ}\text{C}/$ )<br>反向电流( $T_A=100^{\circ}\text{C}/$ ) | $I_R$        |            |              | 5<br>50    | $\mu\text{A}$ | $V_R=V_{RRM}$                        |
| Diode Capacitance<br>二极管电容   | $C_D$        |            | 15           |            | 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

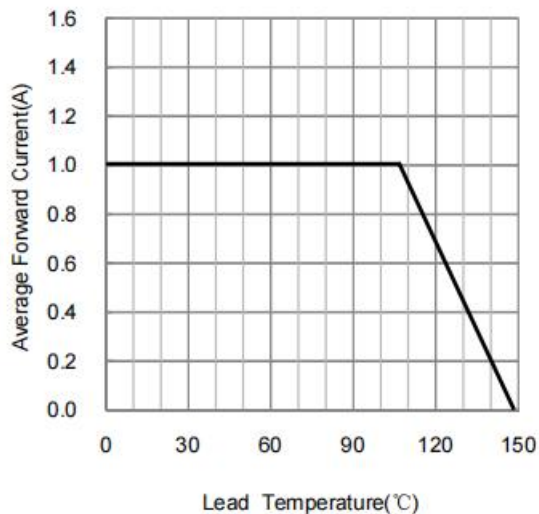


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

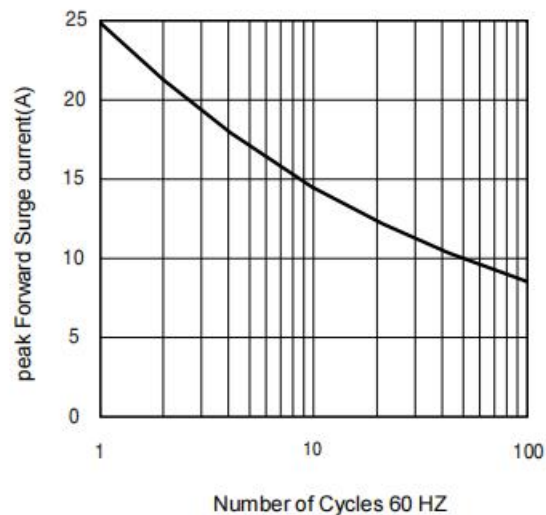


Fig.3 Typical Instantaneous Forward Characteristics

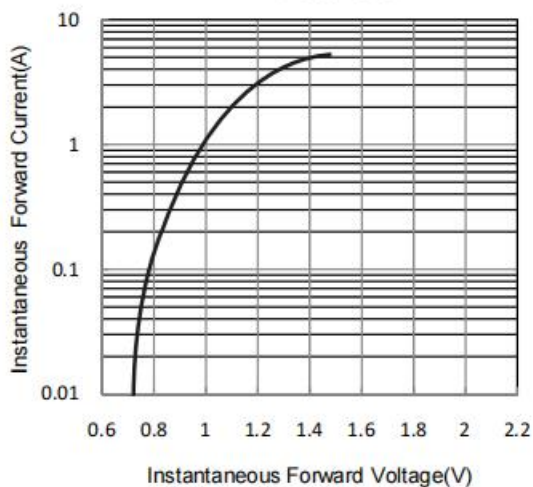
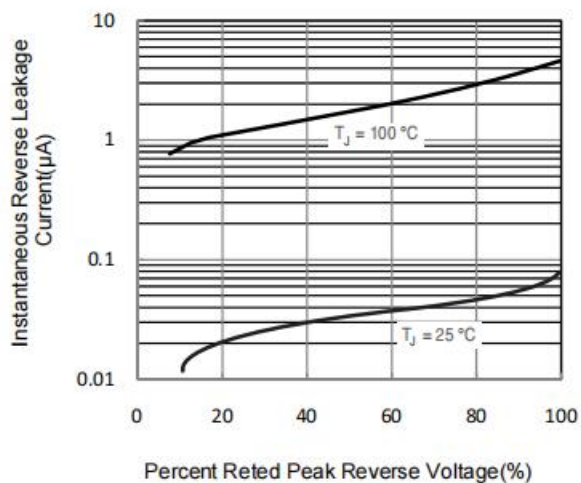
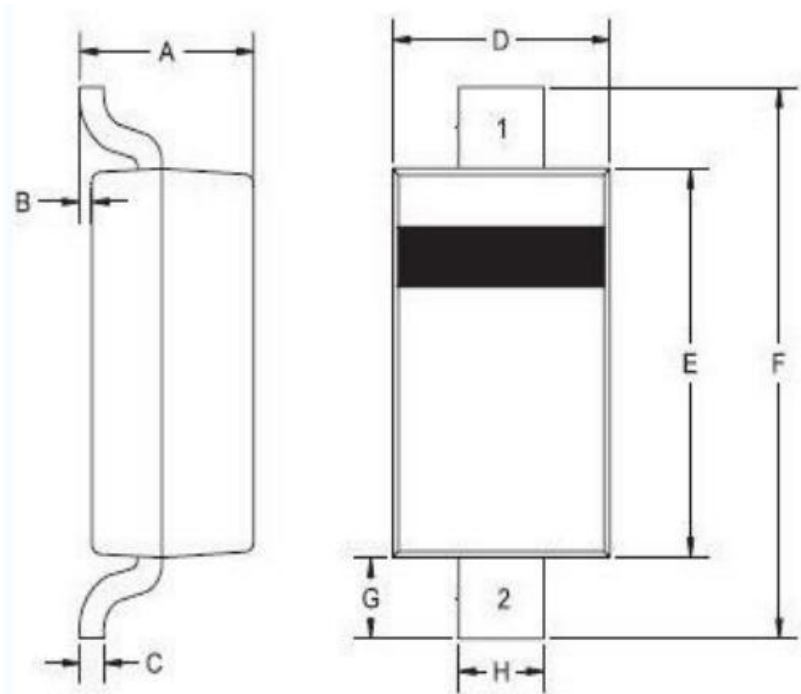


Fig.4 Typical Reverse Leakage Characteristics



## ■Dimension 外形封装尺寸



| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0,037  | 0,053 | 0,95        | 1,35 |
| B          | 0,000  | 0,005 | 0,00        | 0,12 |
| C          | -      | 0,008 | -           | 0,20 |
| D          | 0,055  | 0,071 | 1,40        | 1,80 |
| E          | 0,098  | 0,110 | 2,50        | 2,80 |
| F          | 0,142  | 0,154 | 3,60        | 3,90 |
| G          | 0,016  | -     | 0,40        | -    |
| H          | 0,020  | 0,028 | 0,50        | 0,70 |