



**SOD-323 Schottky Barrier Diode 肖特基势垒二极管**

■ **Internal Configuration & Device Marking 内部结构与产品打标**

|         |   |   |
|---------|---|---|
| Type 型号 | BAT54WS   |   |
| Pin 管脚  |  |  |
| Mark 打标 | L9  |   |

■ **Absolute Maximum Ratings 最大额定值**

| Characteristic 特性参数                      | Symbol 符号             | Rat 额定值              | Unit 单位      |
|--|-----------------------|----------------------|--------------|
| Peak Reverse Voltage 反向峰值电压              | $V_{RRM}$             | 30                   | V            |
| Reverse Work Voltage 反向工作电压              | $V_{RWM}$             |                      |              |
| DC Reverse Voltage 直流反向电压                | $V_R$                 |                      |              |
| Forward Work Current 正向工作电流              | $I_F(I_O)$            | 200                  | mA           |
| Peak Forward Current 正向峰值电流              | $I_{FM}$              | 600                  | mA           |
| Power dissipation 耗散功率                   | $P_D(T_a=25^\circ C)$ | 200                  | mW           |
| Thermal Resistance J-A 结到环境热阻            | $R_{\theta JA}$       | 625                  | $^\circ C/W$ |
| Junction and Storage Temperature 结温和储藏温度 | $T_J, T_{stg}$        | -55to+150 $^\circ C$ |              |

■ **Electrical Characteristics 电特性**

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

| Characteristic 特性参数                                 | Symbol 符号  | Min 最小值 | Max 最大值   | Unit 单位 |
|---|------------|---------|-----------|---------|
| Reverse Breakdown Voltage 反向击穿电压( $I_R=10\mu A$ )   | $V_{(BR)}$ | 30      | —         | V       |
| Reverse Leakage Current 反向漏电流( $V_R=25V$ )          | $I_R$      | —       | 2         | $\mu A$ |
| Forward Voltage( $I_F=1mA$ )<br>正向电压( $I_F=100mA$ ) | $V_F$      |         | 0.32<br>1 | V       |
| Diode Capacitance 二极管电容( $V_R=1V, f=1MHz$ )         | $C_D$      | —       | 10        | pF      |
| Reverse Recovery Time 反向恢复时间                        | $T_{rr}$   | —       | 5         | nS      |

■ Typical Characteristic Curve 典型特性曲线

Fig.1 Forward Current Derating Curve

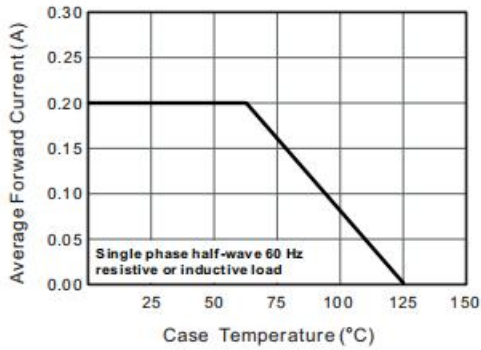


Fig.2 Typical Reverse Characteristics

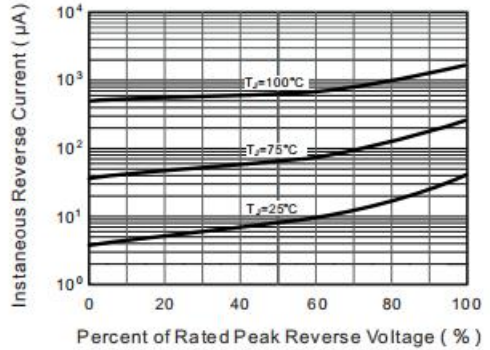


Fig.2 TYPICAL FORWARD VOLTAGE

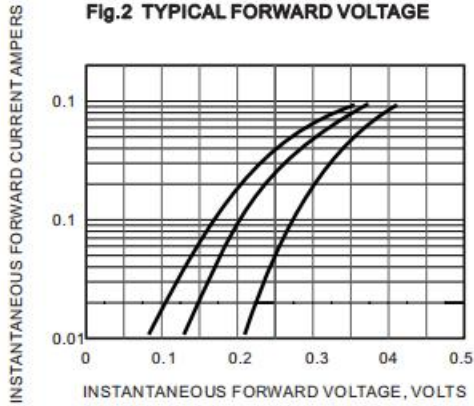


Fig.4 Typical Junction Capacitance

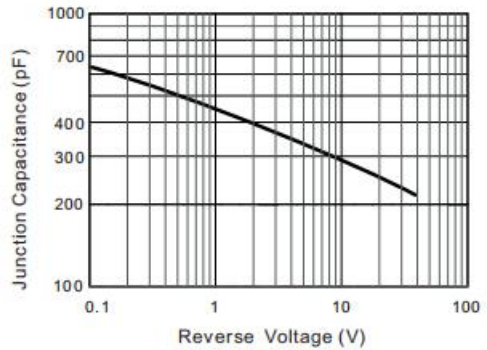
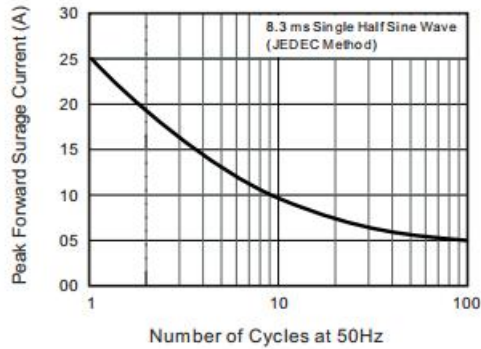
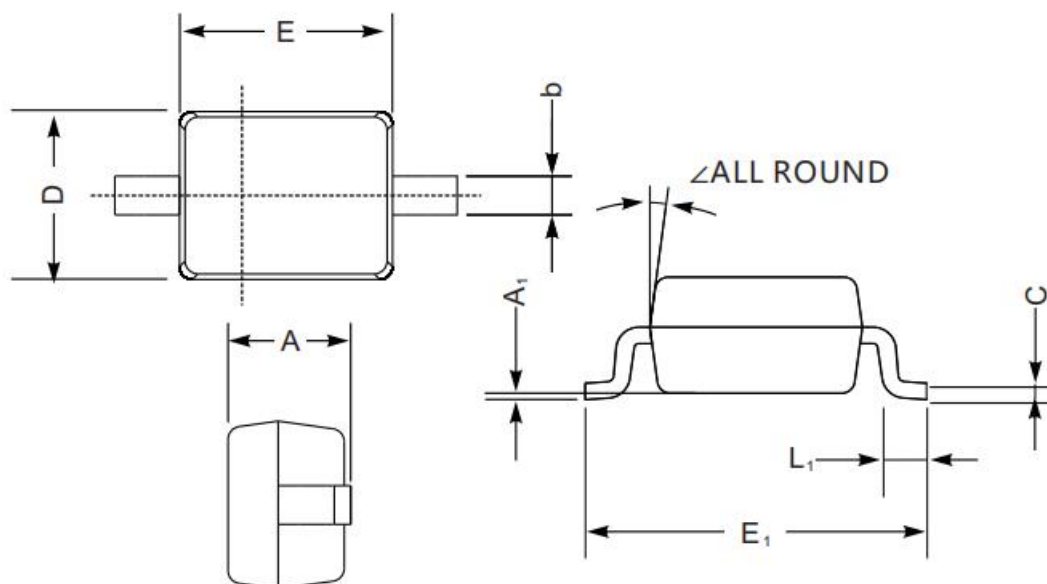


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



■Dimension 外形封装尺寸



SOD-323 mechanical data

| UNIT |     | A   | C    | D   | E   | E <sub>1</sub> | b    | L <sub>1</sub> | A <sub>1</sub> | ∠  |
|------|-----|-----|------|-----|-----|----------------|------|----------------|----------------|----|
| mm   | max | 1.1 | 0.15 | 1.4 | 1.8 | 2.75           | 0.4  | 0.45           | 0.2            | 9° |
|      | min | 0.8 | 0.08 | 1.2 | 1.4 | 2.55           | 0.25 | 0.2            | —              |    |
| mil  | max | 43  | 5.9  | 55  | 70  | 108            | 16   | 16             | 8              |    |
|      | min | 32  | 3.1  | 47  | 63  | 100            | 9.8  | 7.9            | —              |    |