

**SOD-523**

**MARKING: A6**

**特征 Features**

- 开关速度小于 6.0nS; Fast Switching Device (TRR <6.0 nS)
- 最大功率耗散 150mW; Power Dissipation of 150mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

**机械数据 Mechanical Data**

- 封装: SOD-523 封装 SOD-523 Small Outline Plastic Package
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25℃ 除非另有规定)

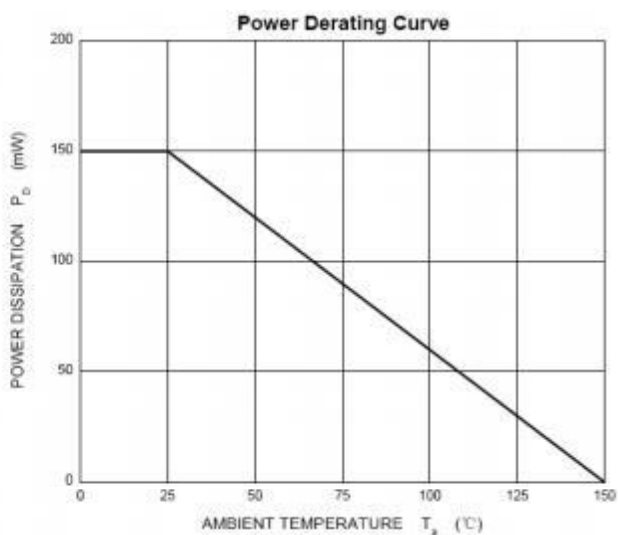
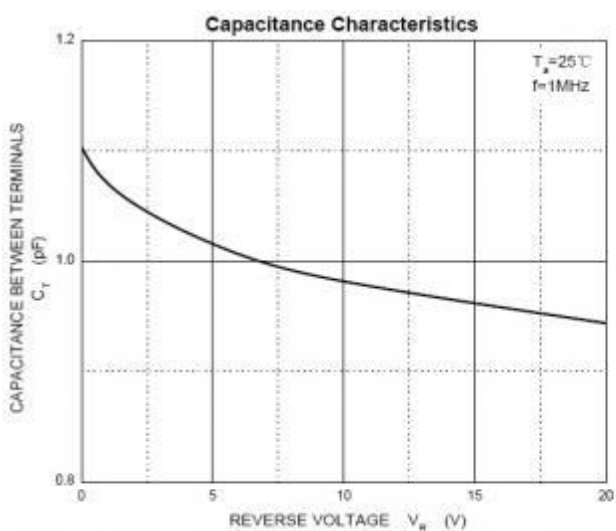
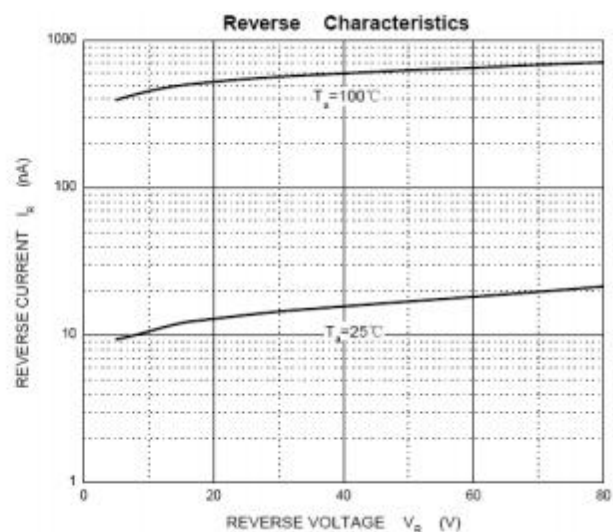
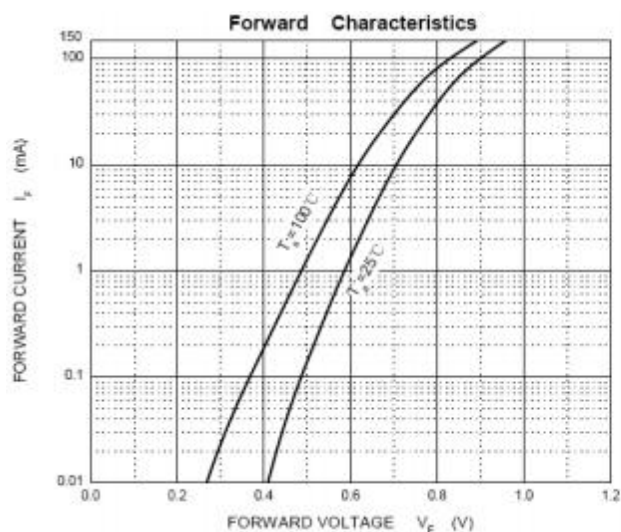
**Maximum Ratings & Thermal Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified.)

| 参数 Parameters                                                         | 符号 Symbol        | 数值 Value | 单位 Unit |
|-----------------------------------------------------------------------|------------------|----------|---------|
| 反向电压 Reverse Voltage                                                  | V <sub>R</sub>   | 75       | V       |
| 功率消耗 Power Dissipation                                                | P <sub>d</sub>   | 150      | mW      |
| 工作结温 Operating junction temperature                                   | T <sub>j</sub>   | 150      | ℃       |
| 存储温度 Storage temperature range                                        | T <sub>s</sub>   | -55-+150 | ℃       |
| 热阻 Thermal Resistance from Junction to Ambient                        | R <sub>θJA</sub> | 833      | ℃/W     |
| 正向电流 Forward Continuous Current                                       | I <sub>F</sub>   | 200      | mA      |
| 正向(不重复)浪涌电流 Non-repetitive Peak Forward Surge Current @tp=1us; TA=25℃ | I <sub>FSM</sub> | 2.0      | A       |

Valid provided that electrodes are kept at ambient temperature.

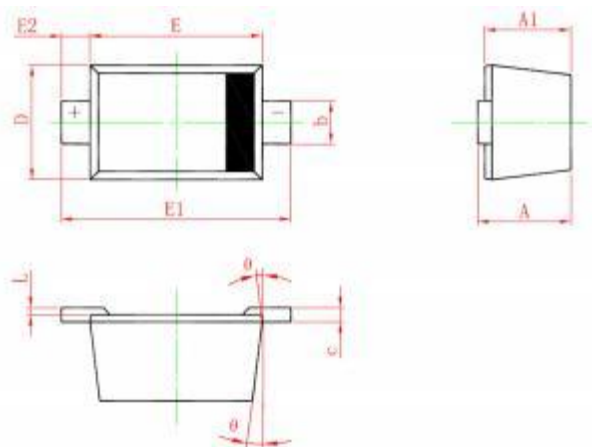
**电特性 Electrical Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified).

| 符号<br>Symbols | 参数<br>Parameter                  | 测试条件<br>Test Condition                | 界限 Limits |       | 单位<br>Unit |
|---------------|----------------------------------|---------------------------------------|-----------|-------|------------|
|               |                                  |                                       | Min       | Max   |            |
| <b>Bv</b>     | 反向击穿电压                           | IR=100uA                              | 75        |       | V          |
| <b>IR</b>     | 反向漏电流<br>Reverse Leakage Current | VR=25V                                | ---       | 30    | nA         |
|               |                                  | VR=75                                 | ---       | 1     | uA         |
| <b>VF</b>     | 正向电压<br>Forward Voltage          | IF=1.0mA                              | ---       | 0.715 | V          |
|               |                                  | IF=10mA                               | ---       | 0.855 |            |
|               |                                  | IF=50mA                               | ---       | 1.00  |            |
|               |                                  | IF=150mA                              | ---       | 1.25  |            |
| <b>VFR</b>    | Forward recovery voltage         |                                       | ---       | 1.75  | V          |
| <b>TRR</b>    | 反向恢复时间<br>Reverse Recovery Time  | IF= IR=10mA<br>RL=50Ω<br>IRR=0.1 X IR | ---       | 6     | nS         |
| <b>Cd</b>     | Diode Capacitance                | VR=0V, f=1MHZ                         | ---       | 2     | pF         |
| <b>Qs</b>     | Stored charge                    | IF= 10mA<br>VR=5.0V<br>RL=500Ω        | ---       | 45    | pC         |



## SOD-523 PACKAGE OUTLINE

Plastic surface mounted package



| Symbol | Dimensions in Millimeters |       | Dimensions in Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.510                     | 0.770 | 0.020                | 0.031 |
| A1     | 0.500                     | 0.700 | 0.020                | 0.028 |
| b      | 0.250                     | 0.380 | 0.010                | 0.015 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 0.750                     | 0.850 | 0.030                | 0.033 |
| E      | 1.100                     | 1.300 | 0.043                | 0.051 |
| E1     | 1.500                     | 1.700 | 0.059                | 0.067 |
| E2     | 0.200 REF                 |       | 0.008 REF            |       |
| L      | 0.010                     | 0.070 | 0.001                | 0.003 |
| θ      | 7° REF                    |       | 7° REF               |       |

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