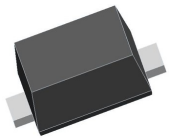
## SOD-523 Plastic-Encapsulate Schottky Barrier Diode

**Features**

- High Current Capability
- Low Forward Voltage Drop



**Mechanical Data**

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

**Marking:**



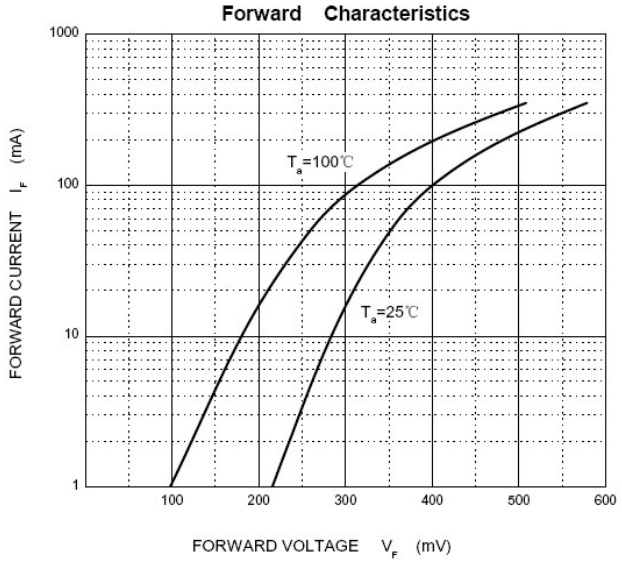

**Maximum Ratings & Thermal Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified.)

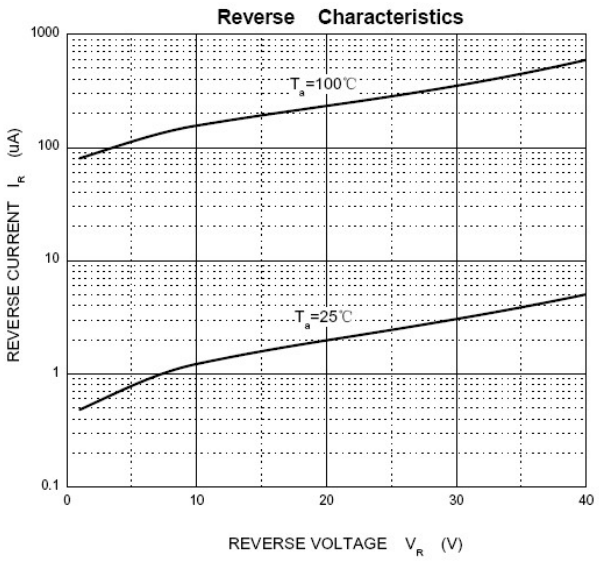
| Parameters | Symbol | **Value** | Unit |
|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 40 | V |
| Maximum RMS voltage | $V_{RMS}$ | 28 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 40 | V |
| Maximum average forward rectified current | $I_{FM}$ | 350 | mA |
| Peak forward surge current 8.3 ms single half sine-wave | $I_{FSM}$ | 2 | A |
| Power Dissipation | PD | 150 | mW |
| ypical thermal resistance | $R_{\theta JA}$ | 667 | ℃/W |
| Operating junction temperature | $T_j$ | 125 | ℃ |
| Storage temperature range | $T_{STG}$ | -50-+150 | ℃ |

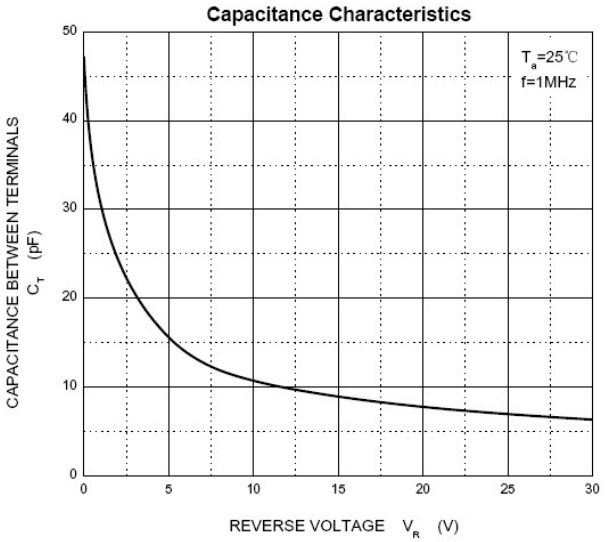
**Electrical Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified).

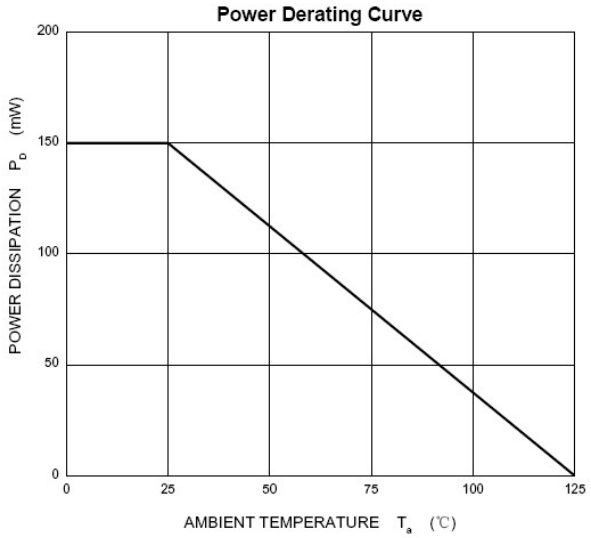
| Parameters | Symbol | Test conditions | **Min** | **TYP** | **Max** | Unit |
|---|---|---|---|---|---|---|
| Maximum forward voltage | $V_F$ | IF = 1mA<br>IF = 5mA<br>IF = 20mA<br>IF = 200mA | | 0.27<br>0.32 | <br><br>0.37<br>0.60 | V |
| Maximum reverse breakdown voltage | VR | IR=100uA | 40 | | | V |
| Maximum reverse current | $I_R$ | VR=30V<br>VR=20V<br>VR=10V | | | 5<br>2<br>1 | uA |
| Total capacitance | $C_{tot}$ | VR =0V, f = 1MHz | | 50 | | pF |
| Reverse recovery time | Trr | IF=IR=200mA,<br>Irr=0.1xIR,RL=100 Ω | | 10 | | ns |

## Characteristic Curves



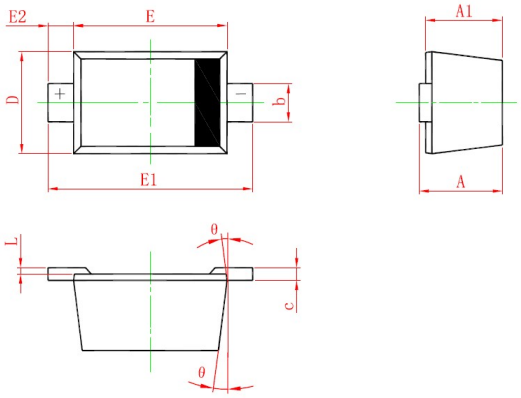




## SOD-523 PACKAGE OUTLINE

**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 | 0.350 | 0.010 | 0.014 |
| 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 | |