

**1N4148WT****150mW SOD-523 Fast Switching Diode****SOD-523****Features**

- Fast Switching Device (TRR <4.0 nS)
- Power Dissipation of 150mW
- High Stability and High Reliability
- Low reverse leakage

**Mechanical Data**

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



MARKING: T4

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

| Parameters                                  | Symbol          | Value    | Unit |
|---------------------------------------------|-----------------|----------|------|
| Reverse Voltage                             | $V_R$           | 75       | V    |
| Peak Reverse Voltage                        | $V_{RM}$        | 100      | V    |
| Power Dissipation                           | $P_d$           | 150      | mW   |
| Operating junction temperature              | $T_j$           | 150      | °C   |
| Storage temperature range                   | $T_s$           | -55-+150 | °C   |
| Thermal Resistance from Junction to Ambient | $R_{\theta JA}$ | 833      | °C/W |
| Working Inverse Voltage                     | $W_{IV}$        | 75       | V    |
| Average Rectified Current                   | $I_o$           | 150      | mA   |
| Non-repetitive Peak Forward Current         | $I_{FM}$        | 300      | mA   |
| Peak Forward Surge Current                  | $I_{FSM}$       | 2.0      | A    |

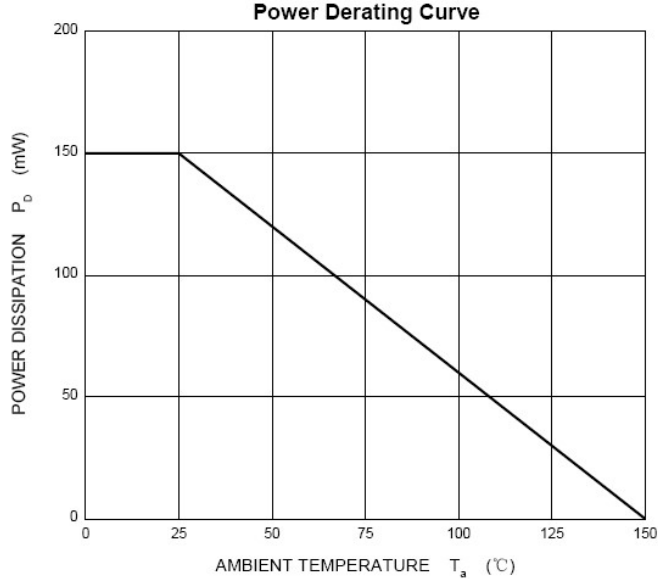
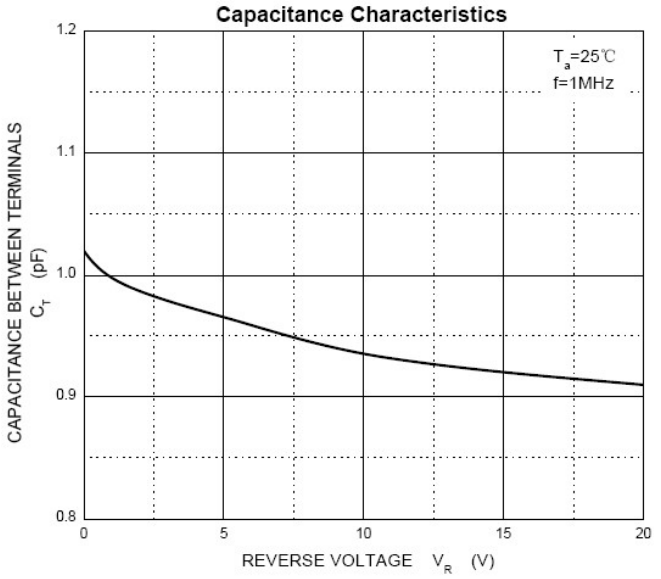
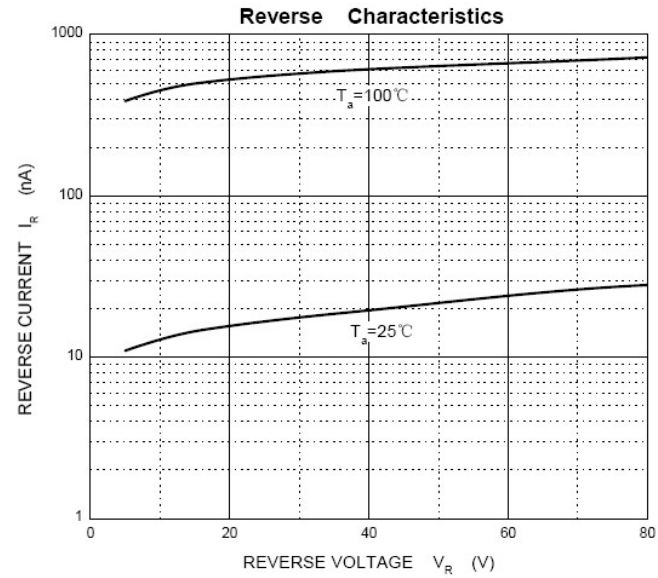
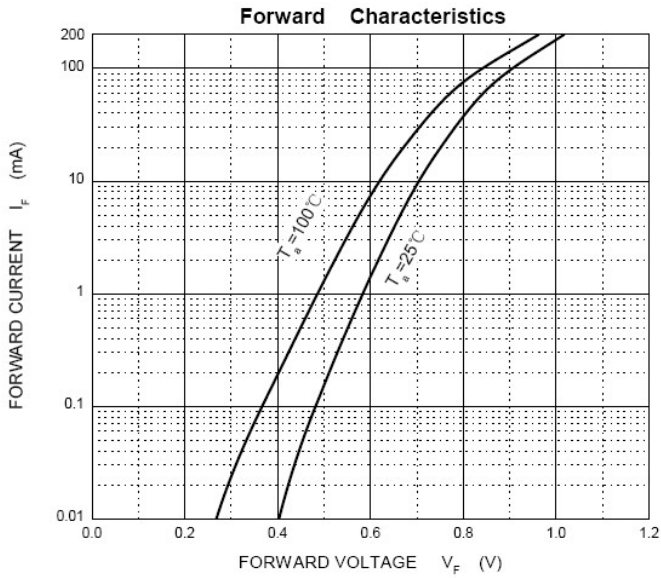
@tp=1us; TA=25°C

Valid provided that electrodes are kept at ambient temperature.

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

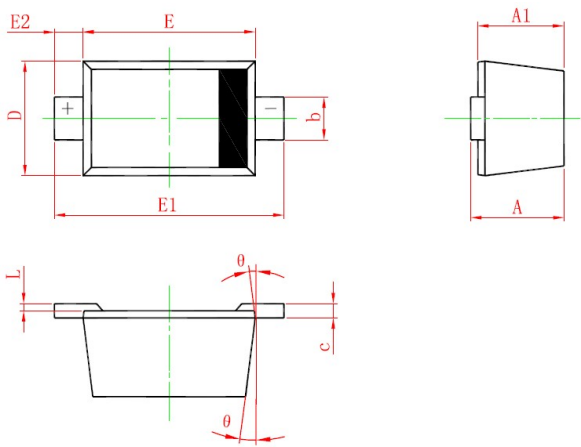
| Symbols | Parameter               | Test Condition | Limits |       | Unit |
|---------|-------------------------|----------------|--------|-------|------|
|         |                         |                | Min    | Max   |      |
| BV      | Breakdown Voltage       | IR=100uA       | 100    |       | V    |
|         |                         | IR=5uA         | 75     |       |      |
| IR      | Reverse Leakage Current | VR=20V         | ---    | 25    | nA   |
|         |                         | VR=75          | ---    | 1     | uA   |
| VF      | Forward Voltage         | IF=1.0mA       | ---    | 0.715 | V    |
|         |                         | IF=10mA        | ---    | 0.855 |      |
|         |                         | IF=50mA        | ---    | 1.00  |      |
|         |                         | IF=150mA       | ---    | 1.25  |      |
| TRR     | Reverse Recovery Time   | IF= IR=10mA    | ---    | 4     | nS   |
|         |                         | RL=100Ω        |        |       |      |
|         |                         | IRR=0.1 X IR   |        |       |      |
| CT      | Capacitance             | VR=0V, f=1MHZ  | ---    | 2     | pF   |

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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               |       |