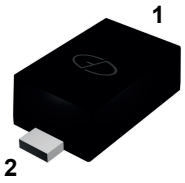
GOOD-ARK
SEMICONDUCTOR

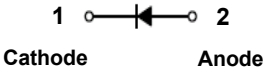
# 1N4148WT
# Switching Diode

## Features

- Fast switching devices
- High conductance
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications




SOD-523




Schematic Diagram

## Absolute Maximum Ratings ($T_A$=25°C unless otherwise noted)

| Parameter | Symbol | Value | Units |
|---|---|---|---|
| Non-Repetitive Peak Reverse Voltage | $V_{RM}$ | 100 | V |
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | 100 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 75 | V |
| Forward Continuous Current | $I_{FM}$ | 300 | mA |
| Average Rectified Output Current | $I_O$ | 150 | mA |
| Non-Repetitive Peak Forward Surge Current (@ t=8.3ms) | $I_{FSM}$ | 2.0 | A |
| Power Dissipation | $P_D$ | 150 | mW |
| Junction Temperature | $T_J$ | 150 | °C |
| Storage Temperature | $T_{STG}$ | -55 to +150 | °C |

## Electrical Characteristics ($T_A$=25°C unless otherwise specified)

| Parameter | Symbol | Conditions | Max | Units |
|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$=1mA | 0.715 | V |
| | | $I_F$=10mA | 0.855 | V |
| | | $I_F$=50mA | 1.0 | V |
| | | $I_F$=150mA | 1.25 | V |
| Reverse Current | $I_R$ | $V_R$=75V (25°C) | 1 | μA |
| | | $V_R$=20V (25°C) | 25 | nA |
| | | $V_R$=75V (150°C) | 50 | μA |
| Capacitance | $C_T$ | $V_R$=0V, F=1MHz | 2 | pF |
| Reverse Recovery Time | $t_{rr}$ | $I_F$=$I_R$=10mA, $I_{RR}$=1mA, $R_L$=100Ω | 4 | nS |

## Typical Electrical Characteristic Curves

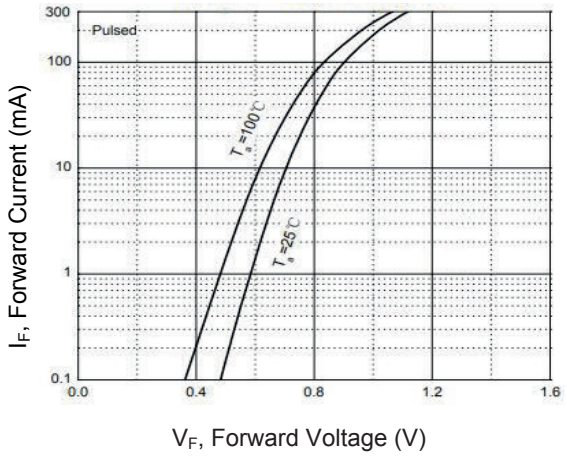



**Figure 1. Forward Characteristics**

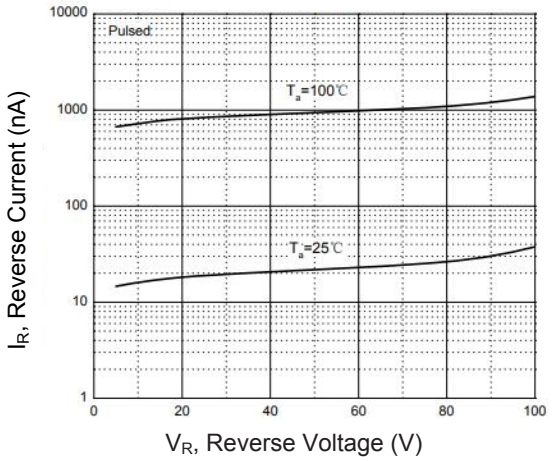



**Figure 1. Reverse Characteristics**

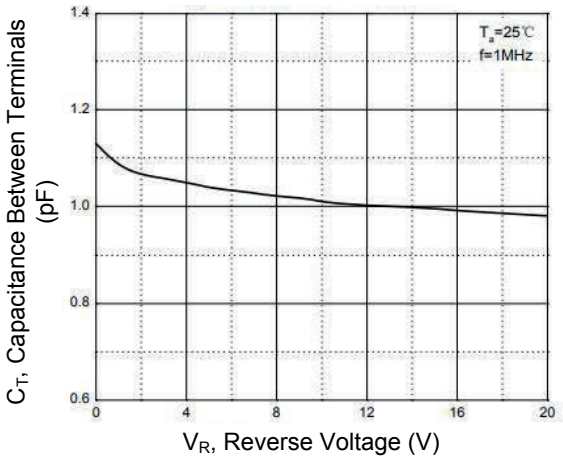



**Figure 3. Capacitance Characteristics**

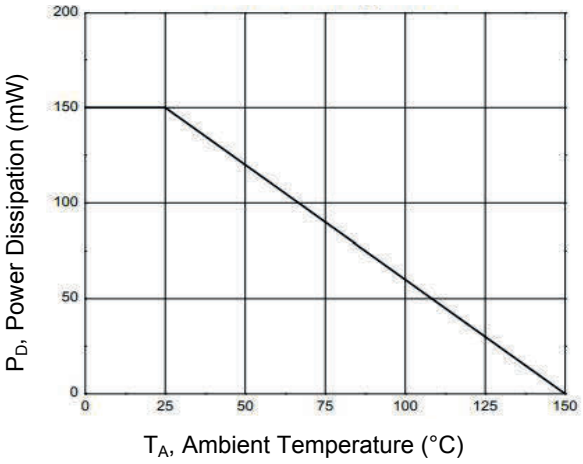
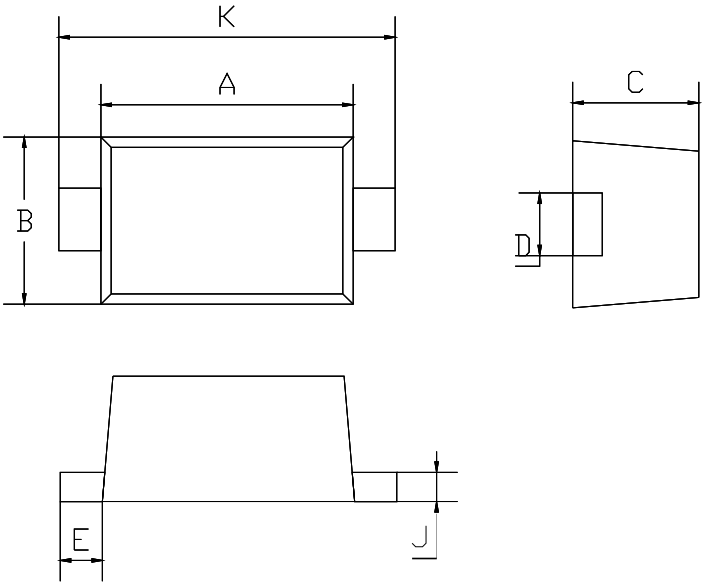



**Figure 4. Power Derating Curve**

## Package Outline Dimensions (SOD-523)




| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min. | Max. | Min. | Max. |
| A | 1.10 | 1.30 | 0.043 | 0.051 |
| B | 0.70 | 0.90 | 0.028 | 0.035 |
| C | 0.50 | 0.70 | 0.020 | 0.028 |
| D | 0.30 Typ | | 0.012 Typ | |
| E | 0.15 | 0.25 | 0.006 | 0.010 |
| J | 0.10 Typ | | 0.004 Typ | |
| K | 1.50 | 1.70 | 0.059 | 0.067 |

## Marking and Ordering Information

| Device | Package | Marking | Carrier | Quantity |
|---|---|---|---|---|
| 1N4148WT | SOD-523 | T4 | Tape & Reel | 3,000pcs / Reel |