



1N4148WS

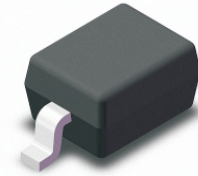
200mW Surface Mount Switching Diode

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

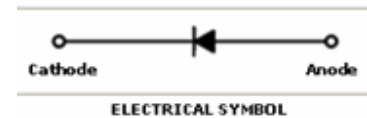
| Symbol | Parameter | Value | Units |
|-----------|---|-------------|------------------|
| P_D | Power Dissipation | 200 | mW |
| T_{STG} | Storage Temperature Range | -65 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | +150 | $^\circ\text{C}$ |
| V_{RSM} | Non-Repetitive Peak Reverse Voltage | 100 | V |
| V_{RRM} | Repetitive Peak Reverse Voltage | 75 | V |
| I_{FRM} | Repetitive Peak Forward Current | 300 | mA |
| I_O | Continuous Forward Current | 150 | mA |
| I_{FSM} | Peak Forward Surge Current (Pulse Width=1us) | 2 | A |

These ratings are limiting values above which the serviceability of the diode may be impaired.

Green Product



SOD-323 Flat Lead



Specification Features:

- Fast Switching Device ($T_{RR} < 4.0$ nS)
- General Purpose Diodes
- Flat Lead SOD-323 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODE:

| Device Type | Device Marking |
|-------------|----------------|
| 1N4148WS | S1 |
| 1N4448WS | S2 |
| 1N914BWS | S3 |

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

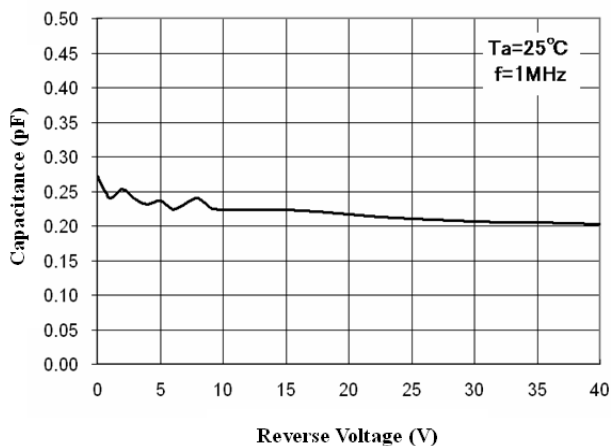
| Symbol | Parameter | Test Condition | Limits | | Unit |
|----------|-------------------------|--|--------|------|---------------|
| | | | Min | Max | |
| B_V | Breakdown Voltage | $I_R = 100\mu\text{A}$ | 100 | | Volts |
| | | $I_R = 5\mu\text{A}$ | 75 | | |
| I_R | Reverse Leakage Current | $V_R = 20\text{V}$ | | 25 | nA |
| | | $V_R = 75\text{V}$ | | 5 | μA |
| V_F | Forward Voltage | 1N4448WS, 1N914BWS $I_F = 5\text{mA}$ | 0.62 | 0.72 | Volts |
| | | 1N4148WS $I_F = 10\text{mA}$ | | 1.0 | |
| | | 1N4448WS, 1N914BWS $I_F = 100\text{mA}$ | | 1.0 | |
| T_{RR} | Reverse Recovery Time | $I_F = 10\text{mA}$ $I_R = 60\text{mA}$ $R_L = 100\Omega$ $I_{RR} = 1\text{mA}$ | | 4 | nS |
| C | Capacitance | $V_R = 0\text{V}$, $f = 1\text{MHz}$ | | 4 | pF |



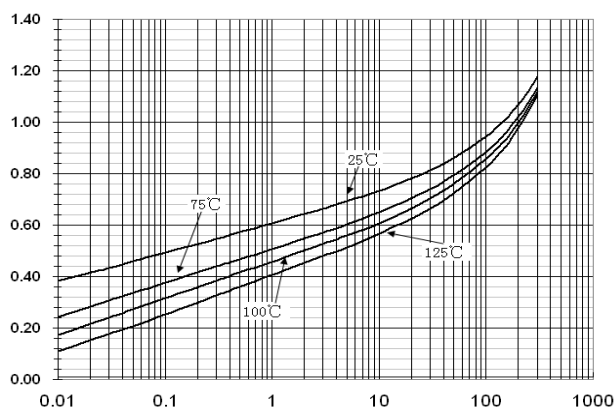
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200mW Surface Mount Switching Diode

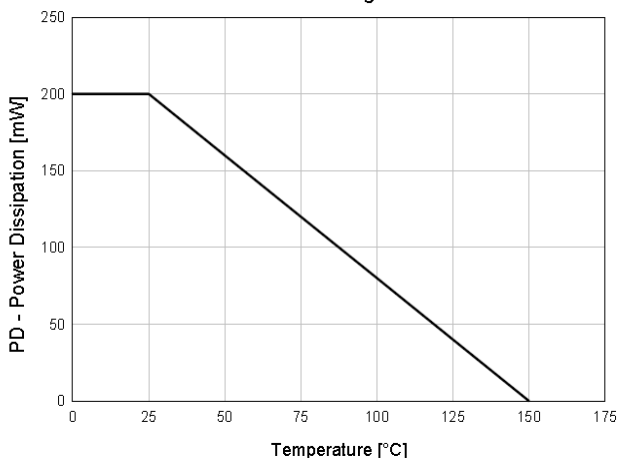
Total Capacitance



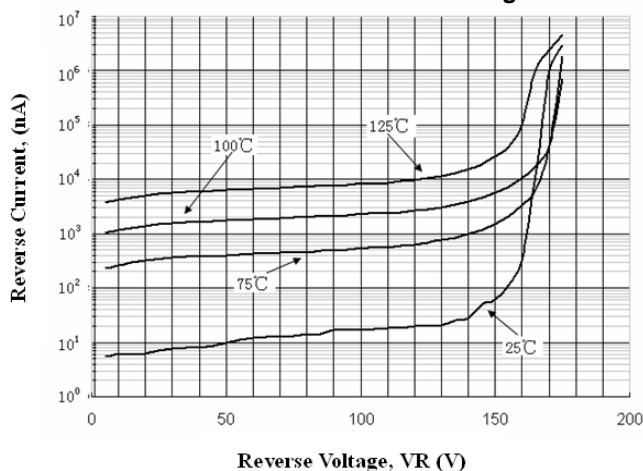
Forward Voltage vs Ambient Temperature



Power Derating Curve

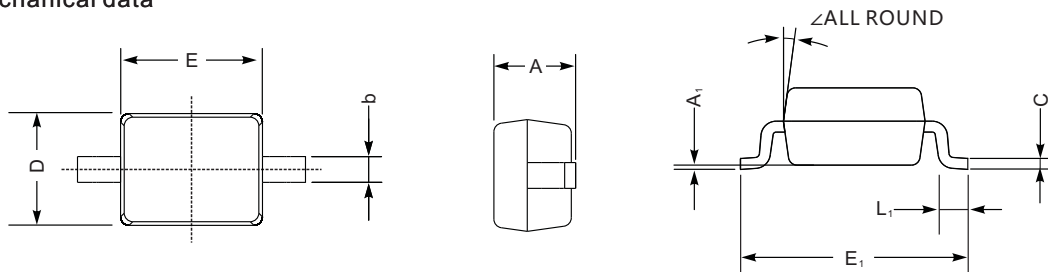


Reverse Current vs Reverse Voltage



PACKAGE OUTLINE

SOD-323 mechanical data



| UNIT | | A | C | D | E | E ₁ | b | L ₁ | A ₁ | ∠ |
|------|-----|-----|------|-----|-----|----------------|------|----------------|----------------|----|
| 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 | — | |

