



Changshu Talent
Semiconductors Co.,Ltd
Tel:0086-512-52851998
Fax:0086-512-52153129

1N4148WX

High Speed Switching Diode 500mW

Features

- Lead Free Finish/RoHS Compliant
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Fast Switching Speed

Mechanical Data

- Marking : T4
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.008 grams (approx.)
- Moisture Sensitivity: Level 1 per J-STD-020C
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings @ 25°C Unless Otherwise Specified

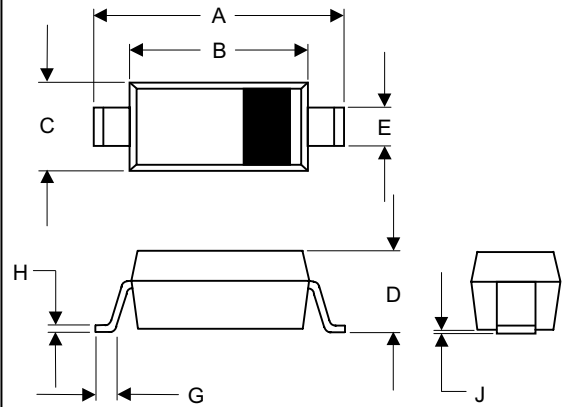
| | | | |
|-------------------------------------|----------------|--------------------|-----|
| Reverse Voltage | V_R | 100 | V |
| Peak Reverse Voltage | V_{RM} | 75 | V |
| Average Rectified Current | $I_{F(AV)}$ | 300 ⁽¹⁾ | mA |
| Peak Forward Surge Current $t < 1S$ | I_{FSM} | 2.0 | A |
| Power Dissipation | P_D | 500 | mW |
| Thermal Resistance | R_{JA} | 315 | K/W |
| Operation/Storage Temp. Range | T_J, T_{STG} | -55 to +150 | °C |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|----------|-----------------------|---|
| Maximum Instantaneous Forward Voltage | V_F | 1.0V | $I_{FM} = 50mA;$ $T_J = 25^\circ C$ (Note 1) |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 25nA 50μA 5.0uA | $V_R = 20Volts$ $T_J = 25^\circ C$ $T_J = 150^\circ C$ $V_R = 75V, T_J = 25^\circ C$ |
| Typical Junction Capacitance | C_J | 4pF | $V_F = V_R = 0V$ |
| Maximum Reverse Recovery Time | T_{rr} | 4nS | $I_F = 50mA$ $I_{rr} = 0.1I_R$ $R_L = 100\Omega$ |

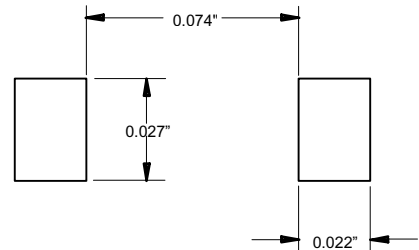
Notes: 1. Valid provided that terminals are kept at ambient temperature

SOD-323



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .090 | .107 | 2.30 | 2.70 | |
| B | .063 | .071 | 1.60 | 1.80 | |
| C | .045 | .053 | 1.15 | 1.35 | |
| D | .031 | .045 | 0.80 | 1.15 | |
| E | .010 | .016 | 0.25 | 0.40 | |
| G | .004 | .018 | 0.10 | 0.45 | |
| H | .004 | .010 | 0.10 | 0.25 | |
| J | ----- | .006 | ----- | 0.15 | |

SUGGESTED SOLDER PAD LAYOUT



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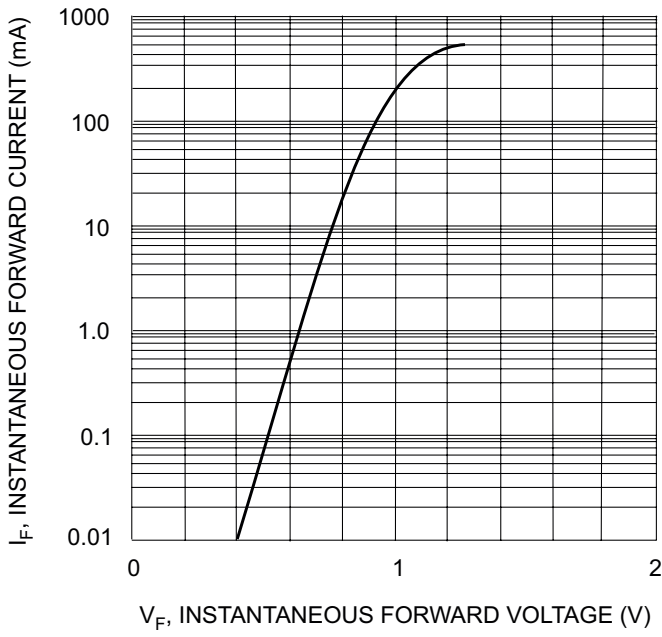


Fig. 1 Forward Characteristics

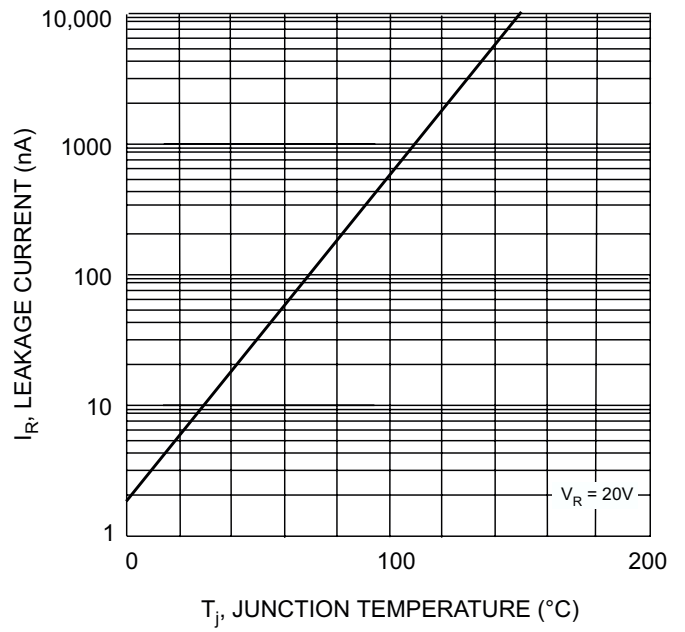


Fig. 2 Leakage Current vs Junction Temperature