

# Silicon Diode

## **1N5550**

200V / 5A

# DATASHEET

OEM – Unitrode

Source: Unitrode Databook 1989-1990

# RECTIFIERS

## Military Approved, 5 Amp, General Purpose

1N5550-1N5553  
JAN, JANTX & JANTXV

**FEATURES**

- Qualified to MIL-S-19500/420A
- Continuous Rating: 5A
- PIV: to 800V
- TX Parts 100% Screened
- Miniature Size
- Controlled Avalanche

**DESCRIPTION**

This series of military approved rectifiers is useful in many military applications. The 100% screening requirements in the "TX" version combined with the unique Unitrode construction assures the highest degree of reliability.

**ABSOLUTE MAXIMUM RATINGS**

| Peak Inverse Voltage | Type                       |
|----------------------|----------------------------|
| 200V                 | JAN, JANTX & JANTXV 1N5550 |
| 400V                 | JAN, JANTX & JANTXV 1N5551 |
| 600V                 | JAN, JANTX & JANTXV 1N5552 |
| 800V                 | JAN, JANTX & JANTXV 1N5553 |

Maximum Average D.C. Output Current

@  $T_A = 55^\circ\text{C}$  ..... 3.0A  
 @  $T_L = 55^\circ\text{C}$  ..... 5.0A

Non-Repetitive Sinusoidal

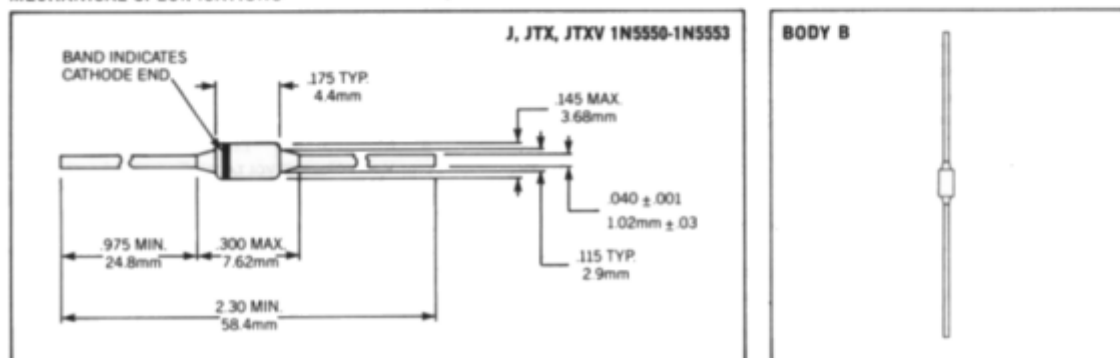
Surge Current (8.3ms) ..... 100A

Operating Temperature Range .....  $-65^\circ\text{C}$  to  $+175^\circ\text{C}$

Storage Temperature Range .....  $-65^\circ\text{C}$  to  $+200^\circ\text{C}$

Thermal Resistance ..... See Lead Temperature Derating Curve

**MECHANICAL SPECIFICATIONS**



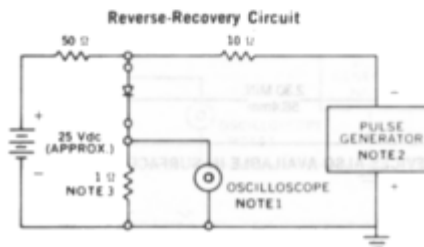
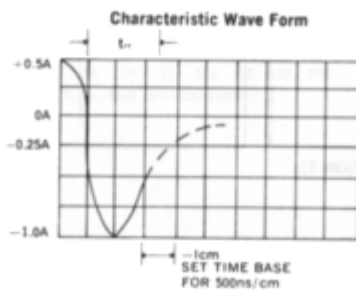
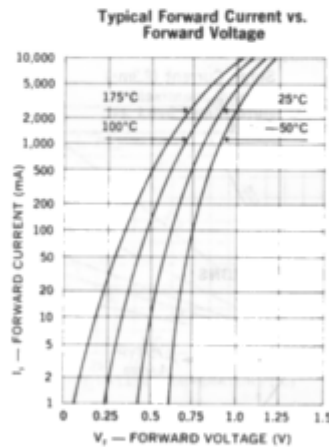
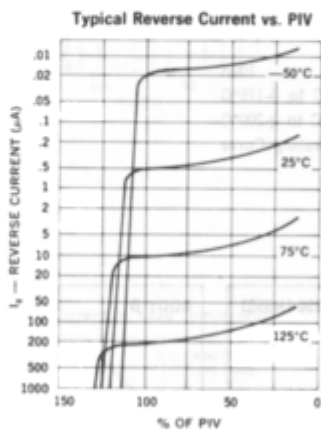
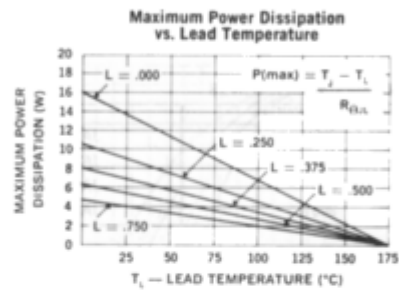
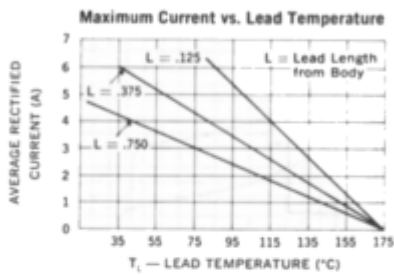
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE: SEE SECTION 11.

JAN, JANTX, JANTXV 1N5550-1N5553

**ELECTRICAL SPECIFICATIONS (at 25°C unless noted)**

| Type                | Peak Inverse Voltage | Minimum Reverse Breakdown Voltage @ 50µA | Peak Forward Voltage                         |      | Maximum Leakage Current @ PIV |       | Maximum Reverse Recovery Time* |
|---------------------|----------------------|--|--|------|-------------------------------|-------|--------------------------------|
|                     |                      |  | Min.   | Max. | 25°C                          | 100°C |                                |
| J, JTX, JTXV 1N5550 | 200V                 | 240V                                     | 0.6V @<br>I <sub>F</sub> = 9A(pk)<br>(8.3ms) | 1.2V | 1.0µA                         | 75µA  | 2.0µs                          |
| J, JTX, JTXV 1N5551 | 400V                 | 460V                                     |  |      |                               |       |                                |
| J, JTX, JTXV 1N5552 | 600V                 | 660V                                     |  |      |                               |       |                                |
| J, JTX, JTXV 1N5553 | 800V                 | 880V                                     |  |      |                               |       |                                |

\*Measured in a test circuit I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RLC</sub> = 0.25A



- NOTES:**
- Oscilloscope: Rise time < 3ns; input impedance > 50Ω.
  - Pulse Generator: Rise time < 8ns; source impedance 10Ω.
  - Current viewing resistor, non-inductive, coaxial recommended.