

# Silicon Diode

## **1N5552**

600V / 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

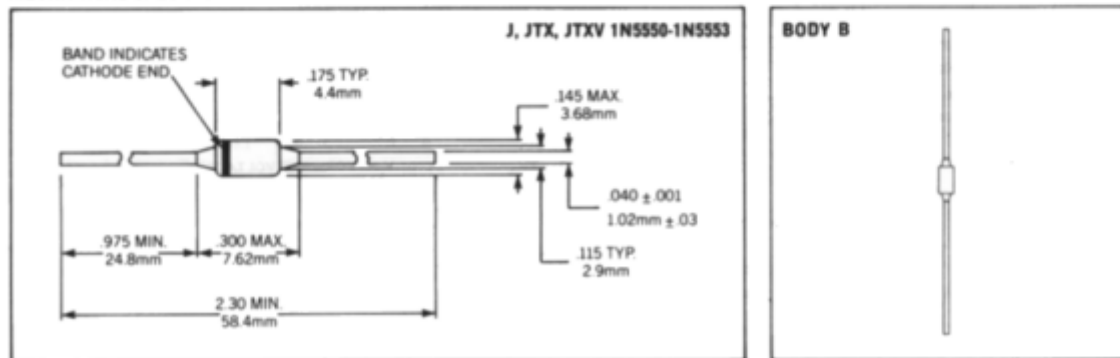
Surge Current (8.3ms) ..... 100A

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**



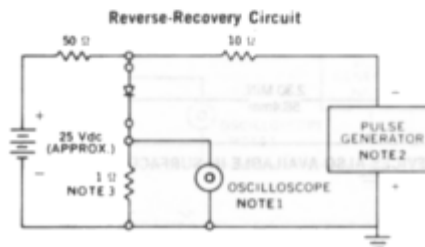
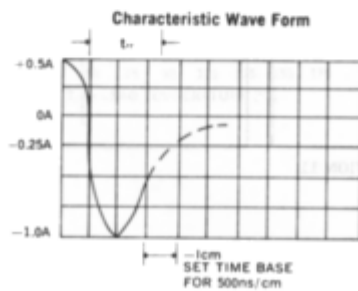
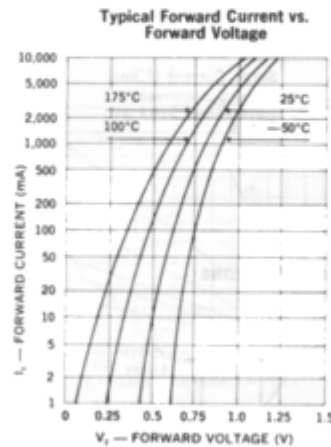
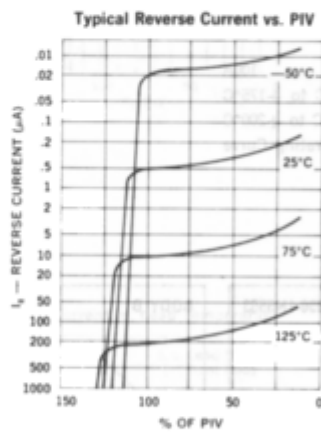
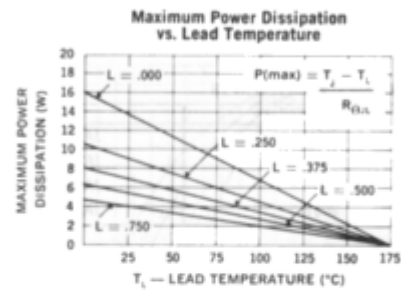
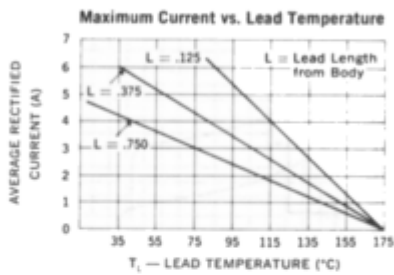
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE: SEE SECTION 11.

JAN, JANTX, JANTXV 1N5550-1N5553

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

Type	Peak Inverse Voltage	Minimum Reverse Breakdown Voltage @ 50 $\mu$ A	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 @ I <sub>F</sub> = 9A(pk) (8.3ms)	1.2V	1.0 $\mu$ A	75 $\mu$ A	2.0 $\mu$ s
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 > 50 $\Omega$ .
  - Pulse Generator: Rise time < 8ns; source impedance 10 $\Omega$ .
  - Current viewing resistor, non-inductive, coaxial recommended.