

# RECTIFIERS

Military Approved, 1 Amp,  
Fast Recovery

JAN, JANTX, & JANTXV 1N4942  
JAN, JANTX, & JANTXV 1N4944  
JAN, JANTX, & JANTXV 1N4946

## FEATURES

- Qualified to MIL-S-19500/359
- Surge Rating: 15A
- PIV: to 600V
- Controlled Avalanche

## DESCRIPTION

These fast recovery rectifiers are suitable for use as power devices for many applications. Devices are available as JAN, JANTX or JANTXV.

## ABSOLUTE MAXIMUM RATINGS

Maximum Reverse Voltage	Type
200V	JAN, JANTX, & JANTXV 1N4942
400V	JAN, JANTX, & JANTXV 1N4944
600V	JAN, JANTX, & JANTXV 1N4946

Maximum Average D.C. Output Current

@  $T_A = 55^\circ\text{C}$  ..... 1.0A

@  $T_A = 100^\circ\text{C}$  ..... 0.75A

Non-Repetitive Sinusoidal

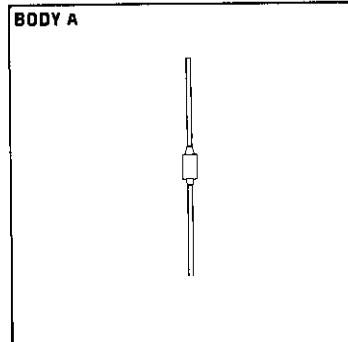
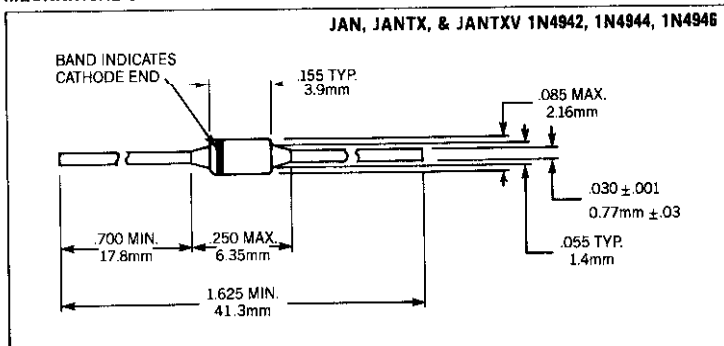
Surge Current (8.3ms) ..... 15A

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

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

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

## MECHANICAL SPECIFICATIONS

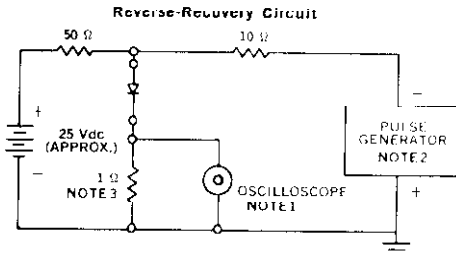
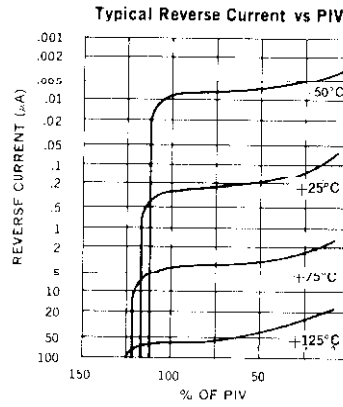
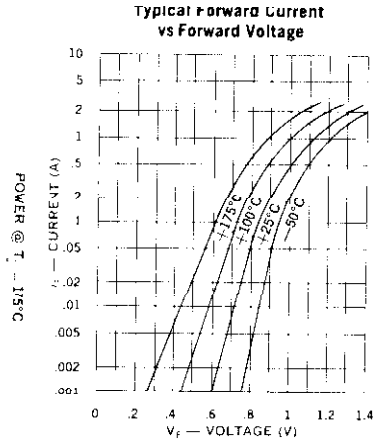
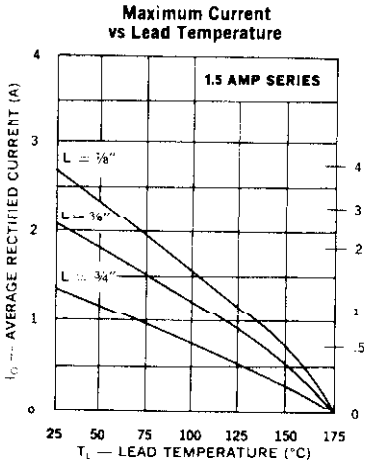


THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

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

Type	Peak Inverse Voltage	Minimum Reverse Breakdown Voltage @ 50µA	Forward Voltage		Maximum Reverse Current		Maximum Reverse Recovery Time*	Capacitance @ V <sub>R</sub> = 12V f = 1MHz
			Min.	Max.	25°C	150°C		
J, JTX, JTXV 1N4942	200V	220V	0.6V	1.3Vdc	1.0µA	200µA	150ns	45pf
J, JTX, JTXV 1N4944	400V	440V	@ 1 Adc		1.0µA	200µA	150ns	35pf
J, JTX, JTXV 1N4946	600V	660V					250ns	25pf

\*Measured in circuit I<sub>F</sub> = 1/2A, I<sub>R</sub> = 1.0A, I<sub>REC</sub> = 1/4A



- NOTES:**
1. Oscilloscope: Rise time <math>t\_r</math> 3ns; input impedance <math>Z\_{in}</math> 50Ω.
  2. Pulse Generator: Rise time <math>t\_r</math> 8ns; source impedance 10Ω.
  3. Current viewing resistor, non-inductive, coaxial recommended.

**Characteristic Waveform.**

