

TECHNICAL DATA
DATA SHEET 5109, REV. A

AVAILABLE AS

1N
JAN
JANTX
JANTXV
EQUIVALENT (SJ,SX,SV)*

Fast Recovery Rectifiers

**Sensitron equivalent diodes are manufactured and screened to MIL-PRF-19500 flow and guidelines starting from wafer fabrication through assembly and testing using our internal specification.*

DESCRIPTION:

This voidless hermetically sealed fast recovery rectifier diode series is military qualified per MIL-PRF-19500/359 and is targeted for commercial and military aircraft, military vehicles, space, shipboard markets and all high reliability and space applications.

FEATURES / BENEFITS:

- ✓ Hermetic, non-cavity glass package
- ✓ Category I Metallurgically bonded
- ✓ JAN/ JANTX/ JANTXV available per MIL-PRF-19500/359
- ✓ Tin/Lead hot solder dip (HSD) termination finish

MAXIMUM RATINGS

- ✓ Operating and Storage Temperature: -65°C to +175°C
- ✓ Solder temperature: 260 °C for 10s (max)
- ✓ Thermal Resistance: 38 °C (junction to lead)
- ✓ Forward surge current: 15A @ 8.3 ms half-sine

ELECTRICAL CHARACTERISTICS

TYPE NUMBER	PEAK INVERSE VOLTAGE	MIN BREAKDOWN VOLTAGE	AVG RECTIFIED CURRENT	MAXIMUM REVERSE CURRENT @ PIV		MAX. FORWARD VOLTAGE (PULSED) V _F @ 1A	MAX. CAP. C @ -12V	MAXIMUM SURGE CURRENT ¹ I _{FSM}	MAXIMUM REVERSE RECOVERY TIME ² T _{rr}
				Amps	μAmps				
	Volts	Volts	55°C	25°C	150°C	V	pF	Amps	nsec
1N4942	200	220	1.0	1.0	200	1.3	45	15	5000
1N4944	400	440							
1N4946	600	660							
1N4947	800	880							
1N4948	1000	1100							

Note 1: I_o = 1A, 8ms surge

Note 2: I_F=0.5A, I_{rm}=1A, I_{r(REC)}=.250A

SENSITRON

SEMICONDUCTOR

Your Power Solutions Provider

1N4942 thru 1N4948

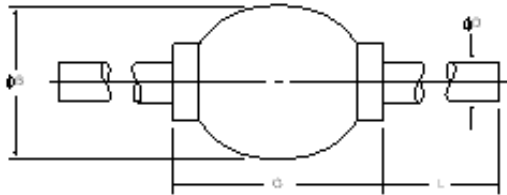
FAST RECOVERY RECTIFIERS

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PACKAGE DIMENSIONS (inches/mm)

AXIAL LEAD RECTIFIER OUTLINES



Termination Finish: Axial leads and endcaps are copper with Tin/Lead HSD finish.

Note: Cathode side of device is indicated by a dark band marked on body.

PACKAGE STYLE	DIMENSIONS - INCHES / MILLIMETERS			
	ϕB	ϕD	G	L
103	.065/1.65 1.65/3.81	.027/0.33 .69/8.4	.140/2.50 3.56/6.35	1.0/1.50 25.4/38.1

PART ORDERING INFORMATION

The following part numbers can be screened and tested to the military screening flow. The parts are marked in accordance with the testing performed, example:

Sensitron Screening Level	*Part Number-- Leaded Package (example for 1N4942)
1N	1N4942
JAN	JAN1N4942
SJ	SJ4942
JANTX	JANTX1N4942
SX	SX4942
JANTXV	JANTXV1N4942
SV	SV4942

*Parts can also be ordered Tape & Reel

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