

## 1A Fast Recovery Rectifiers

Qualified per MIL-PRF-19500/359

### DESCRIPTION:

This voidless hermetically sealed 1A fast recovery rectifier diode series is military qualified per MIL-PRF-19500/359 and is targeted for space, commercial and military aircraft, military vehicles, shipboard markets and all high reliability applications.

### ✓ FEATURES / BENEFITS

- ✓ Hermetic, non-cavity glass package
- ✓ Category I Metallurgically bonded
- ✓ All devices are 100% hot solder dipped
- ✓ JAN/ JANTX/JANTXV available per MIL-PRF-19500/429
- ✓ "JANS Plus" removes atypical/out of family  $V_F$
- ✓ For JANS and US (MELF) version, see /429 (5615 Series).

### 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

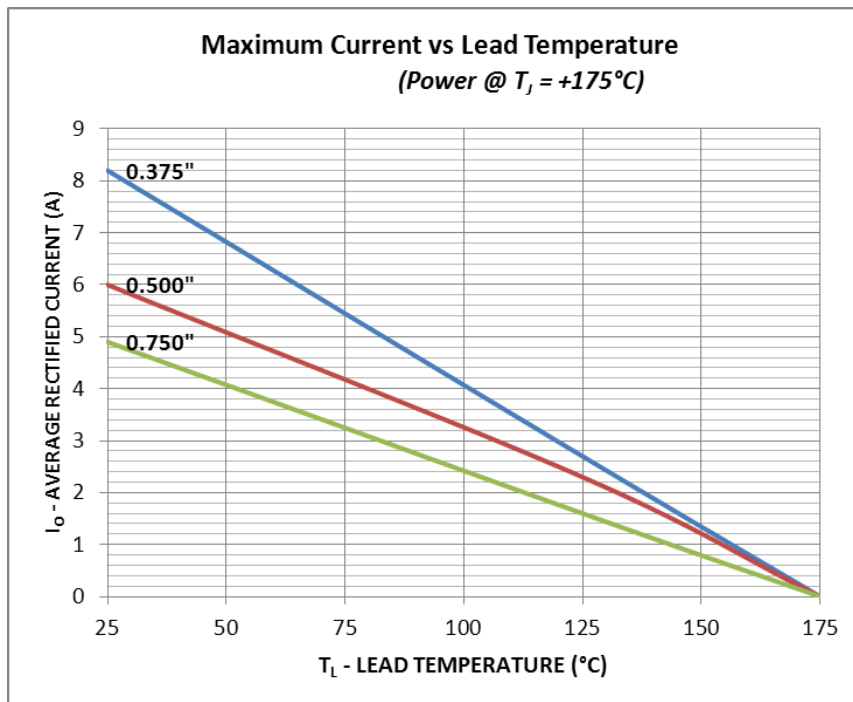
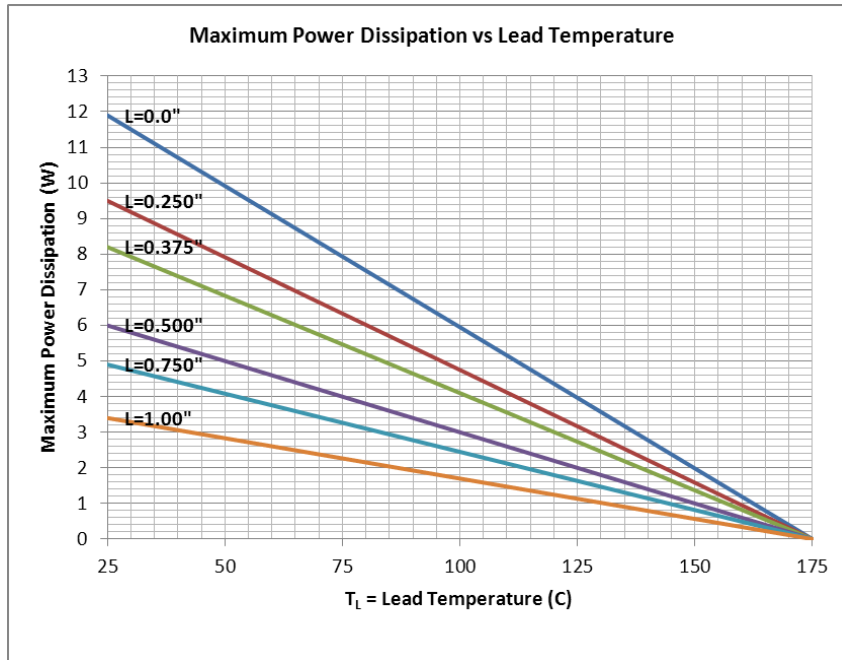
TYPE NUMBER	PEAK INVERSE VOLTAGE	AVG. RECTIFIED CURRENT		MAXIMUM REVERSE CURRENT @ PIV		MAX. FORWARD VOLTAGE		MAX SURGE CURRENT <sup>1</sup>	MAXIMUM REVERSE RECOVERY TIME T <sub>rr</sub> I <sub>F</sub> =0.5A I <sub>RM</sub> =1A I <sub>R(REC)</sub> =0.25A	THERM RES R <sub>θJL</sub> d=.375
		Amps	Amps	μAmps	μAmps	V	A			
	Volts	55°C	100°C	25°C	150°C					
1N4942	200								150	
1N4944	400								150	
1N4946	600	1.0	.75	1.0	200	1.3	1.0	15	250	38
1N4947	800								250	
1N4948	1000								500	

Note 1: T<sub>A</sub>=100°C, 8.3 surge

\*Sensitron **space 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.

**TECHNICAL DATA**  
**DATA SHEET 5109, REV. A**

**GRAPHS**



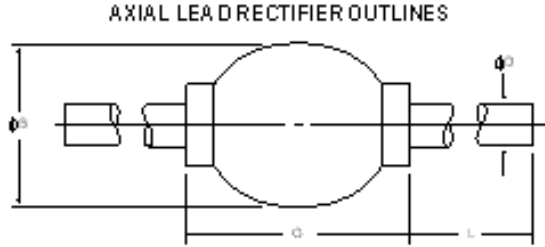
# **SENSITRON** **SEMICONDUCTOR**

1N4942, 1N4944, 1N4946 thru 1N4948

**1A FAST RECOVERY DIODE**

## TECHNICAL DATA DATA SHEET 5109, REV. A

### PACKAGE DIMENSIONS (inches/mm)



**Termination Finish:** Axial leads and Endcaps are copper with Tin/Lead finish.

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

PACKAGE STYLE	DIMENSIONS - INCHES / MILLIMETERS			
	$\phi_B$	$\phi_D$	G	L
103	.065/.150 1.65/3.81	.027/.033 .69/.84	.140/.250 3.56/6.35	1.0/1.50 25.4/38.1

### PART ORDERING INFORMATION

The following part numbers can be purchased in either axial or surface mount devices and 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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