

**TECHNICAL DATA
DATA SHEET 5081 REV. A.1**

AVAILABLE AS

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

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 standard recovery rectifier diode series is military qualified per MIL-PRF-19500/429 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-19500/429
- ✓ 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)
- ✓ Thermal Resistance: 13 °C (junction to endcap)
- ✓ Forward surge current: 30A @ 8.3 ms half-sine

ELECTRICAL CHARACTERISTICS

TYPE NUMBER	PEAK INVERSE VOLTAGE	MIN BREAKDOWN VOLTAGE	AVG RECTIFIED CURRENT		MAXIMUM REVERSE CURRENT @ PIV		MAX. PEAK FORWARD VOLTAGE (PULSED) VF @ 3A	MAX. SURGE CURRENT ¹ IFSM	MAXIMUM REVERSE RECOVERY TIME ² Trr
			Amps		μAmps				
			55°C	100°C	25°C	100°C			
1N5615/US	200	220							150
1N5617/US	400	440							150
1N5619/US	600	660	1.0	.750	.5	25	0.8 min 1.6 max	25	250
1N5621/US	800	880							300
1N5623/US	1000	1100							500

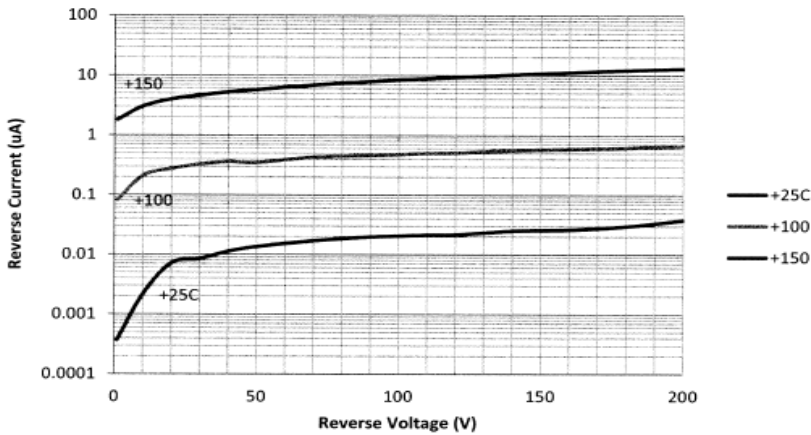
Note 1: I_o = 1A, 8ms surge

Note 2: I_F=0.5A, I_{RM}=1A, I_{r(REC)} =.25A

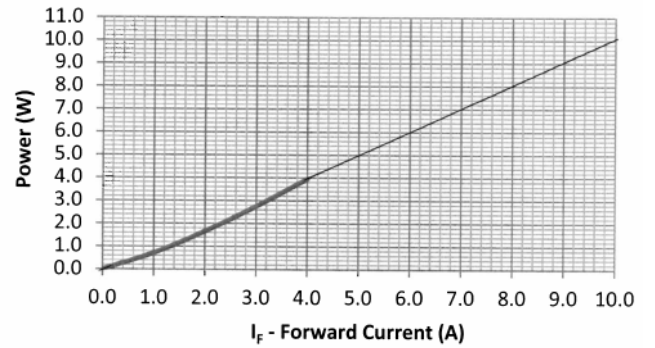
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GRAPHS

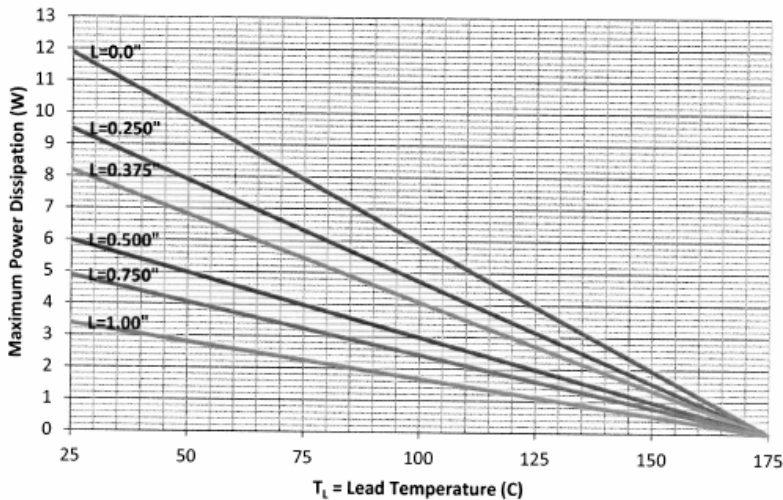
1N5615 Typical Reverse Current vs Reverse Voltage



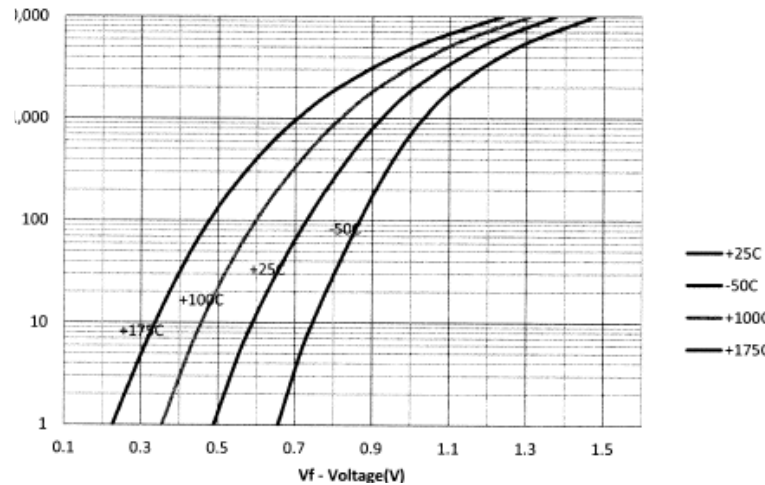
1N5615 P vs I_F @ +175C



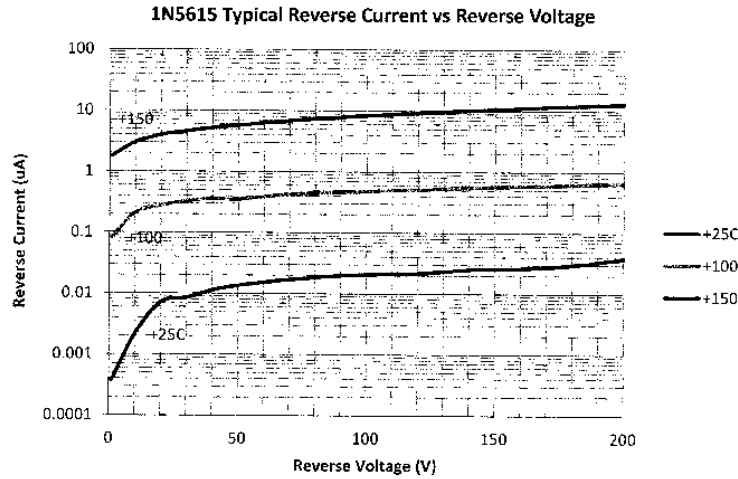
1N5615 Maximum Power Dissipation vs Lead Temperature



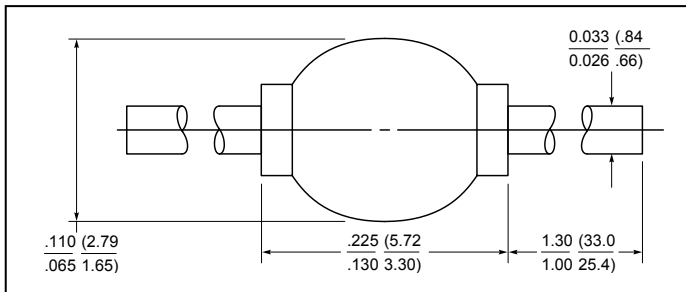
1N5615 Typical Forward Voltage vs Forward Current



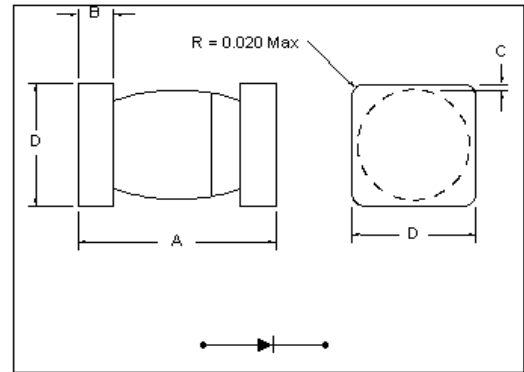
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PACKAGE DIMENSIONS (inches/mm)



PKG.102



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

PACKAGE STYLE	DIMENSIONS - INCHES / MILLIMETERS			
	A	B	C	D
MELF-A	.168/.200 4.27/5.08	0.019/.028 .48/.71	.003 Min .08 Min	.091/.103 2.31/2.62

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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 1N5615)	*Part Number-- Surface Mount Package (example for 1N5615US)
1N	1N5615	1N5615US
JAN	JAN1N5615	JAN1N5615US
SJ	SJ5615	SJ5615US
JANTX	JANTX1N5615	JANTX1N5615US
SX	SX5615	SX5615US
JANTXV	JANTXV1N5615	JANTXV1N5615US
SV	SV5615	SV5615US
JANS	JANS1N5615	JANS1N5615US
SS	SS5615	SS5615US

*Parts can also be ordered Tape & Reel

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