

# **SENSITRON** **SEMICONDUCTOR**

TECHNICAL DATA  
DATA SHEET 126, REV G.3

1N5550/US thru 1N5554/US

**3A STANDARD RECOVERY  
RECTIFIERS**

AVAILABLE AS  
1N, JAN, JANTX, JANTXV  
JANS

## 3A Standard Recovery Rectifiers

*Qualified per MIL-PRF-19500/420*

### DESCRIPTION:

This voidless hermetically sealed standard recovery rectifier diode series is military qualified per MIL-PRF-19500/420 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 parts are 100% hot solder dipped
- ✓ JAN/ JANTX/ JANTXV available per MIL-PRF-19500/420

### ELECTRICAL CHARACTERISTICS

**MAX. RATINGS / ELECTRICAL CHARACTERISTICS** All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

RATING	CONDITIONS	MIN	TYP	MAX	UNIT
Peak Inverse Voltage (PIV) 1N5550 1N5551 1N5552 1N5553 1N5554	-	-	-	200 400 600 800 1000	Vdc
Average DC Output Current ( $I_o$ )	$T_A = +55^\circ\text{C}$	-	-	3.0	Amps
Peak Single Cycle Surge Current ( $I_{FSM}$ )	$t_p = 8.3$ ms Single Half Cycle Sine Wave, Superimposed On Rated Load	-	-	100	Amps(pk)
Operating and Storage Temp. ( $T_{op}$ & $T_{stg}$ )	-	-65	-	+175	$^\circ\text{C}$
Maximum Forward Voltage ( $V_F$ ) 1N5550 1N5551 1N5552 1N5553 1N5554	$I_f = 9.0\text{A}$ (300 $\mu\text{sec}$ pulse, duty cycle < 2%) $t_p \leq 8.3$ ms	-	-	1.2 1.2 1.2 1.3 1.3	Volts

# SENSITRON SEMICONDUCTOR

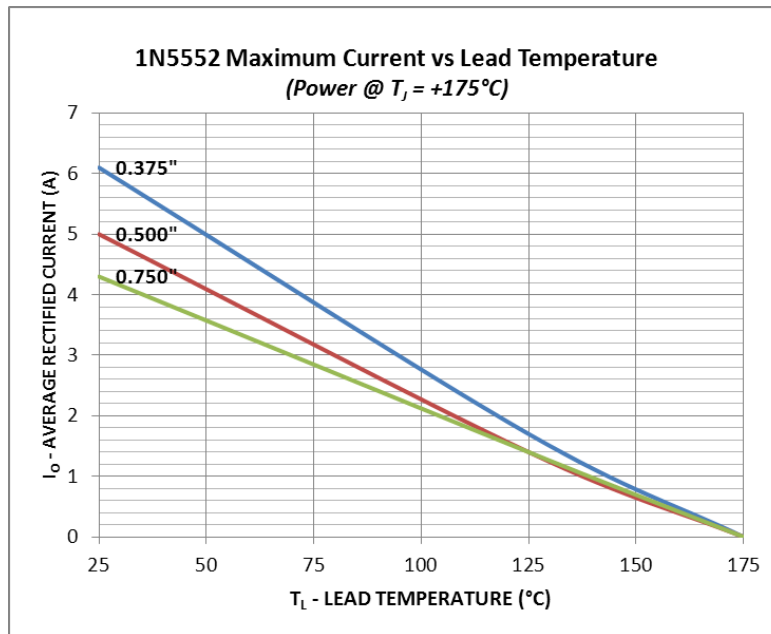
1N5550/US thru 1N5554/US

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RATING	CONDITIONS	MIN	TYP	MAX	UNIT
Maximum Instantaneous Reverse Current At Rated (PIV)	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	-	-	1.0 60	$\mu\text{Amps}$
Reverse Recovery Time ( $t_{rr}$ )	$I_F = 0.5\text{A}$ , $I_r = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$	-	-	2.0	$\mu\text{s}$
Thermal Resistance ( $\theta_{JL}$ )	Junction to Lead $d = 0.375''$			22	$^\circ\text{C/W}$
Thermal Resistance ( $\theta_{JEC}$ )	Junction to Endcap	-	-	6.5	$^\circ\text{C/W}$

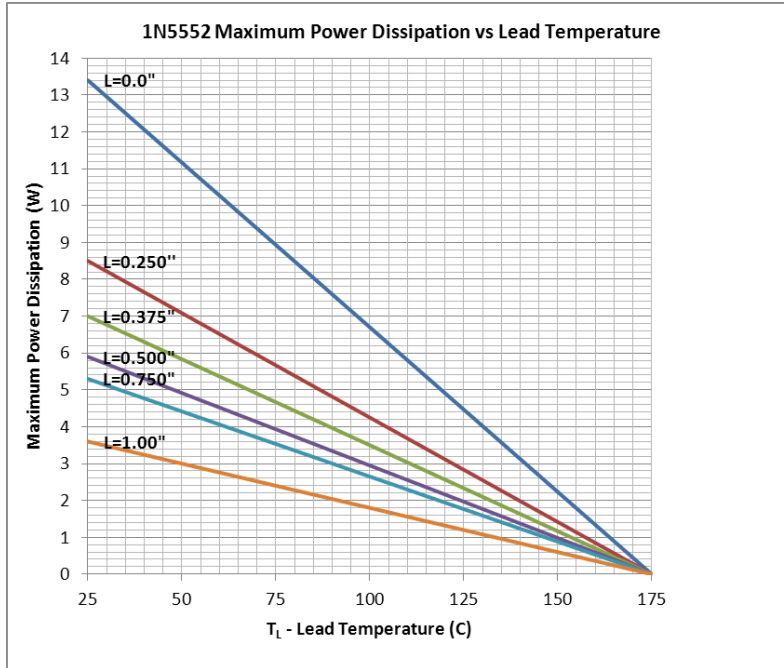
## GRAPHS:



# SENSITRON SEMICONDUCTOR

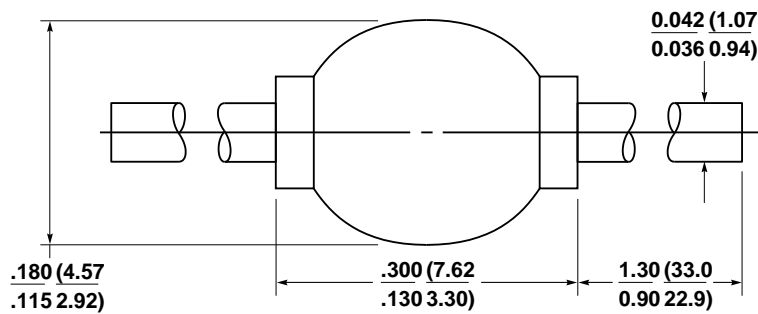
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## PACKAGE DIMENSIONS (inches/mm)

### AXIAL (PKG 301)



**Note:** The cathode side is marked with a dark colored band on one side of the diode body.

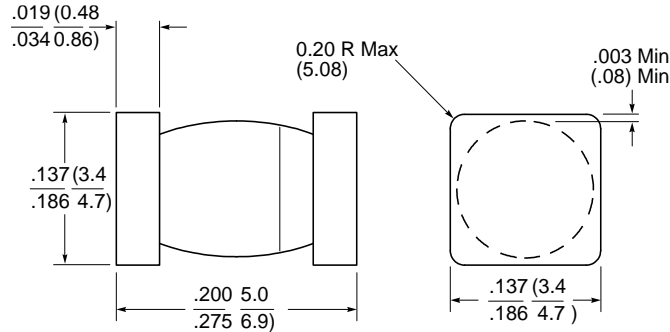
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## MELF (Add "US" to part number)



**Note:** The cathode side is marked on body with a dark band.

## MELF-B

## 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 1N5550)	*Part Number-- Surface Mount Package (example for 1N5550US)
1N	1N5550	1N5550US
JAN	JAN1N5550	JAN1N5550US
JANTX	JANTX1N5550	JANTX1N5550US
JANTXV	JANTXV1N5550	JANTXV1N5550US
JANS	JANS1N5550	JANS1N5550US

\*Parts can also be ordered Tape & Reel

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