**SENSITRON SEMICONDUCTOR**

**1N6626 thru 1N6631**

**ULTRAFAST RECTIFIERS**

**TECHNICAL DATA**
**DATA SHEET 5077, REV. B.1**

**AVAILABLE AS**
**1N, JAN, JANTX, JANTXV**
**JANS**
**JAN EQUIVALENT***
**SJ*, SX*, SV***
**SS**

# Standard Recovery Rectifiers

*Qualified per MIL-PRF-19500/590*

## DESCRIPTION:

This voidless hermetically sealed standard recovery rectifier diode series is military qualified per MIL-PRF-19500/590 and is targeted for space, commerical and military aircraft, military vehicles, shipboard markets and all high reliability applications.

## FEATURES / BENEFITS:

- ✓ Hermetic, non-cavity glass package
- ✓ Category I Metallurgically bonded
- ✓ Parts are hot solder dipped
- ✓ JAN/ JANTX/ JANTXV available per MIL-PRF-19500/590

## MAXIMUM RATINGS

- ✓ Operating and Storage Temperature: -65°C to +175°C
- ✓ Junction Temperature: -65°C to +155°C

## ELECTRICAL CHARACTERISTICS

| Rating | Symbol | Condition | Max | Units |
|---|---|---|---|---|
| WORKING PEAK REVERSE VOLTAGE<br>1N6626, U, US<br>1N6627, U ,US<br>1N6628, U, US<br>1N6629, U, US<br>1N6630 ,U, US<br>1N6631, U, US | $V_{RWM}$ | | 200<br>400<br>600<br>800<br>900<br>1000 | Volts |
| AVERAGE RECTIFIED FORWARD CURRENT<br>1N6626 thru 1N6628<br>1N6629 thru 1N6631 | $I_o$ | $T_L$= 75 °C | 2.3<br>1.8 | Amps |
| AVERAGE RECTIFIED FORWARD CURRENT<br>1N6626U, US thru 1N6628U, US<br>1N6629U, US thru 1N6631U, US | $I_o$ | $T_{EC}$= 110 °C | 4.0<br>2.8 | Amps |
| PEAK FORWARD SURGE CURRENT<br>1N6626, U, US thru 1N6630,U, US<br>1N6631, U, US | $I_{FSM}$ | $T_p$=8.3ms | 75<br>60 | A(pk) |
| MAXIMUM REVERSE CURRENT<br>1N6626, U, US thru 1N6630,U, US<br>1N6631, U, US | $I_R$ @ $V_{RWM}$ | $T_j$ = 25 °C | 2.0<br>4.0 | µAmps |
| MAXIMUM REVERSE CURRENT<br>1N6626, U, US thru 1N6630,U, US<br>1N6631, U, US | $I_R$ @ $V_{RWM}$ | $T_j$ = 150 °C | 500<br>600 | µAmps |

**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.*

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**TECHNICAL DATA**
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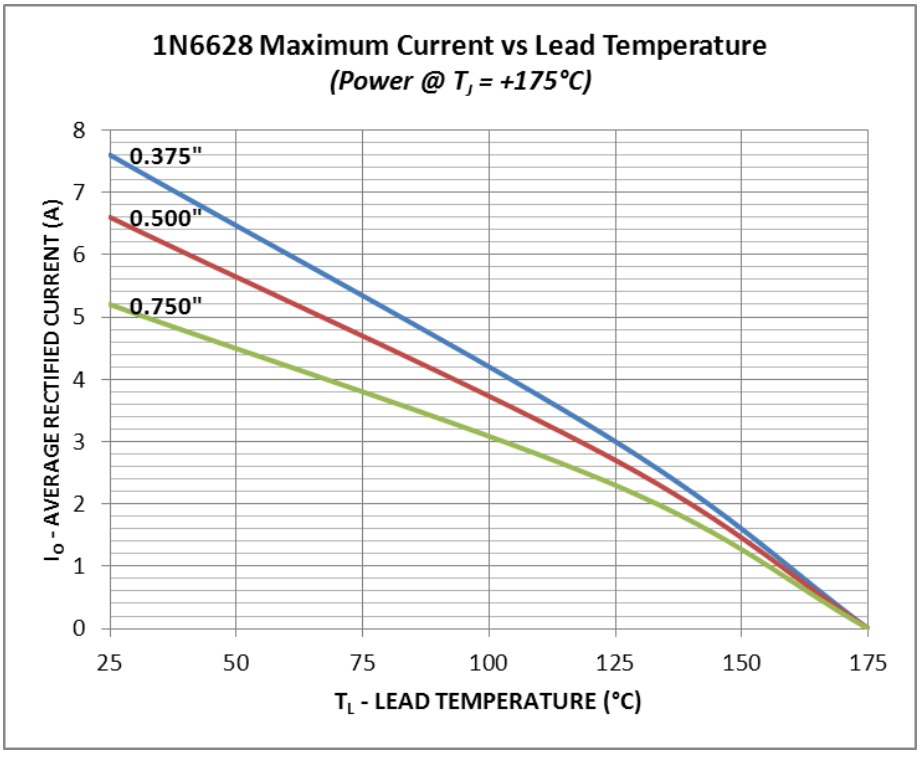
| Rating | Symbol | Condition | Max | Units |
|---|---|---|---|---|
| MAX. PEAK FORWARD VOLTAGE (PULSED)<br>1N6626, U, US thru 1N6628,U, US<br>1N6629,U, US to 1N6630,U, US<br>1N6631, U, US | $V_{FM}$ | $I_F$=4A<br>$I_F$=3A<br>$I_F$=2A | 1.50<br>1.70<br>1.95 | Volts |
| PEAK RECOVERY CURRENT<br>1N6626, U, US thru 1N6628,U, US<br>1N6629,U, US to 1N6630,U, US<br>1N6631, U, US | $I_{RM}$ | $I_F$=2A,<br>100A/μ | 3.5<br>4.2<br>5.0 | A(pk) |
| MAXIMUM REVERSE RECOVERY TIME<br>1N6626, U, US thru 1N6628,U, US<br>1N6629,U, US to 1N6630,U, US<br>1N6631, U, US | $T_{rr}$ | $I_F$=0.5A<br>$I_{RM}$ =1.0A | 30<br>50<br>60 | ns |
| FORWARD RECOVERY VOLTAGE<br>1N6626, U, US thru 1N6628,U, US<br>1N6629,U, US to 1N6630,U, US<br>1N6631, U, US | $V_{FRM}$ | $I_F$=1A<br>$t_r$=12ns | 8<br>12<br>20 | Volts |
| THERMAL RESISTANCE (Axial)<br>1N6626 thru 1N6631 | $R\theta_{JL}$ | L=.375 | 22 | °C/W |
| THERMAL RESISTANCE (MELF)<br>1N6626U, US thru 1N6631U, US | $R\theta_{JC}$ | L=0 | 6.5 | °C/W |

## GRAPHS



**TECHNICAL DATA**
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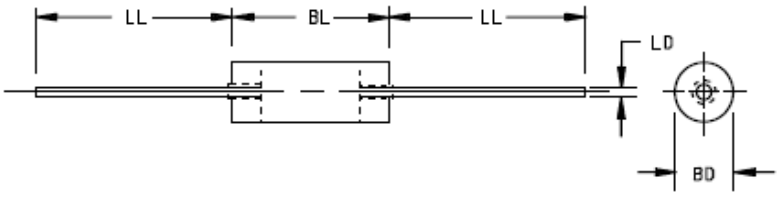
## PACKAGE DIMENSIONS (inches/mm)

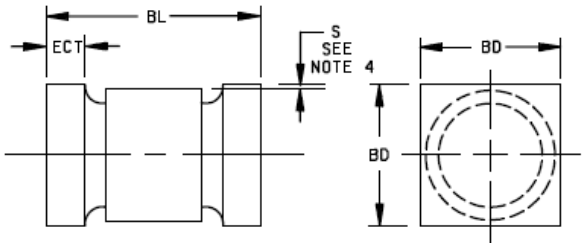
### MECHANICAL DIMENSIONS In Inches / (mm)

### AXIAL




| Ltr | Dimensions | | | | |
|---|---|---|---|---|---|
| | Inches | | Millimeters | | |
| | Min | Max | Min | Max | Notes |
| BD | .115 | .137 | 2.92 | 3.48 | 4 |
| BL | .130 | .300 | 3.30 | 7.62 | 3 |
| LD | .037 | .042 | 0.94 | 1.07 | 3 |
| LL | .900 | 1.300 | 22.86 | 33.02 | |

### MELF




| Ltr | Dimensions | | | |
|---|---|---|---|---|
| | 1N6626U, US through 1N6631U, US | | | |
| | Inches | | Millimeters | |
| | Min | Max | Min | Max |
| BL | .200 | .225 | 5.08 | 5.72 |
| BD | .137 | .148 | 3.48 | 3.76 |
| ECT | .019 | .028 | 0.48 | 0.71 |
| S | .003 | | 0.08 | |

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## 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 1N6626) |
|---|---|
| ***1N*** | 1N6626 |
| ***JAN*** | JAN1N6626 |
| ***SJ*** | SJ6626 |
| ***JANTX*** | JANTX1N6626 |
| ***SX*** | SX6626 |
| ***JANTXV*** | JANTXV1N6626 |
| ***SV*** | SV6626 |
| ***JANS*** | JANS1N6626 |
| ***SS*** | SS6626 |

**Parts can also be ordered Tape & Reel*