

**SENSITRON**  
**SEMICONDUCTOR**

1N6620/U/US thru 1N6625/U/US  
**ULTRAFAST RECOVERY RECTIFIER**

TECHNICAL DATA  
DATA SHEET 5089, REV. A.2

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

**Ultrafast Recovery Rectifier**  
*Qualified per MIL-PRF-19500/585*

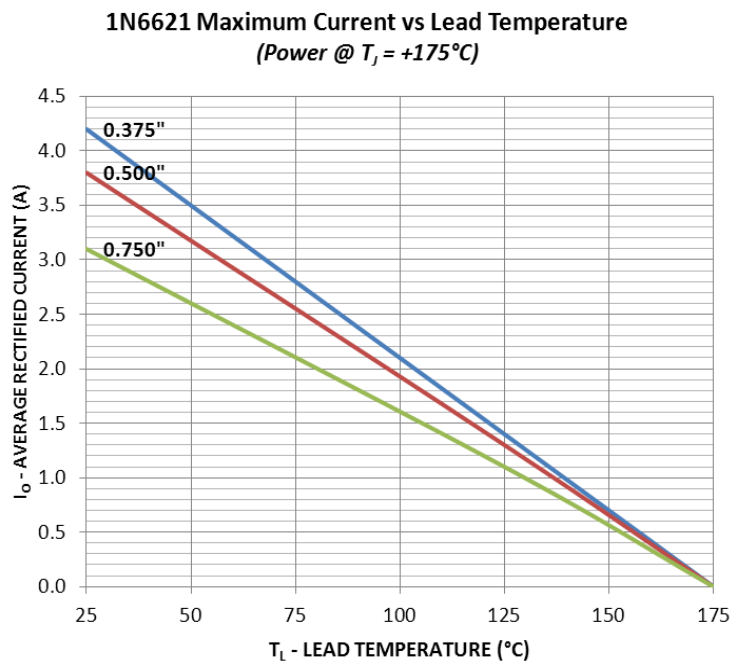
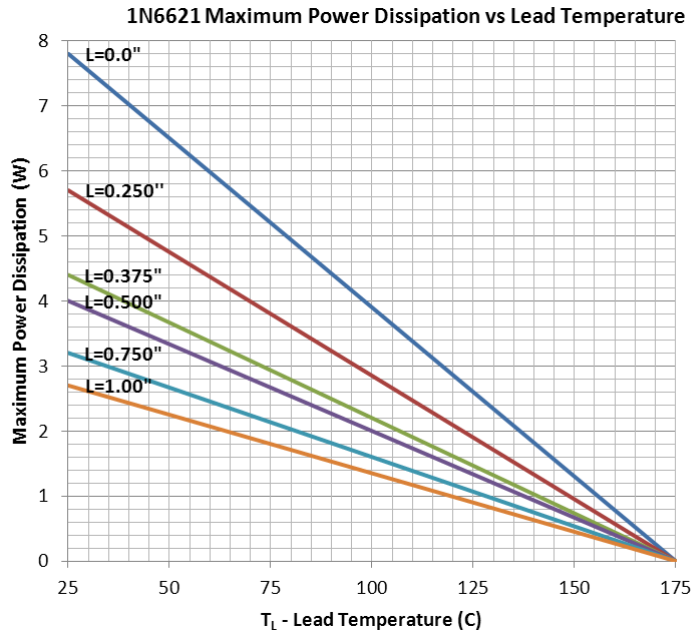
- Hermetic, non-cavity glass package
- Metallurgically bonded
- Operating and storage temperature: -65°C to +175°
- All parts are 100% hot solder dipped
- JAN/ JANTX/ JANTXV available per MIL-PRF-19500/585
- "JANS Plus" removes atypical/out of family V<sub>F</sub>

**MAX. RATINGS / ELECTRICAL CHARACTERISTICS** All ratings are at T<sub>A</sub> = 25°C unless otherwise specified.

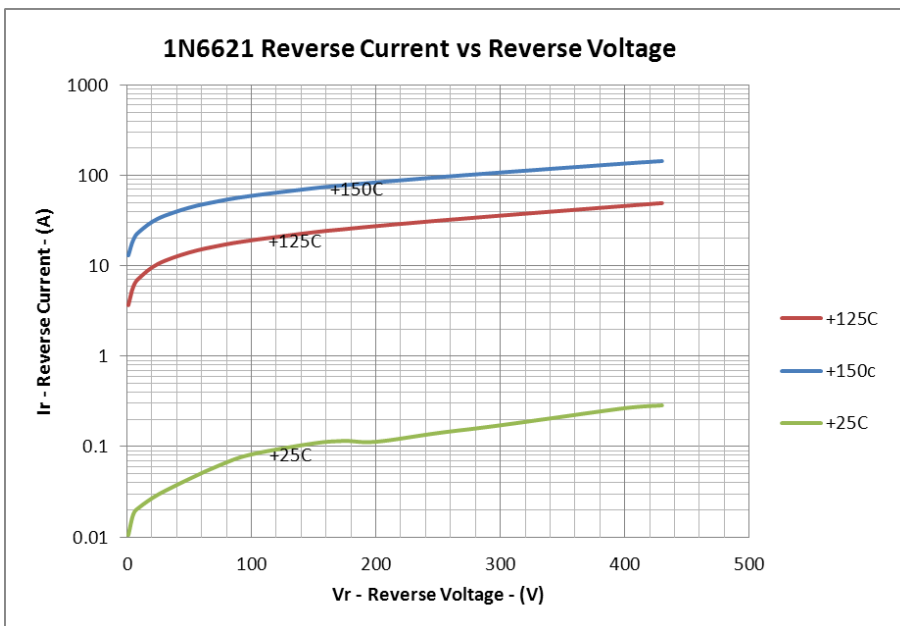
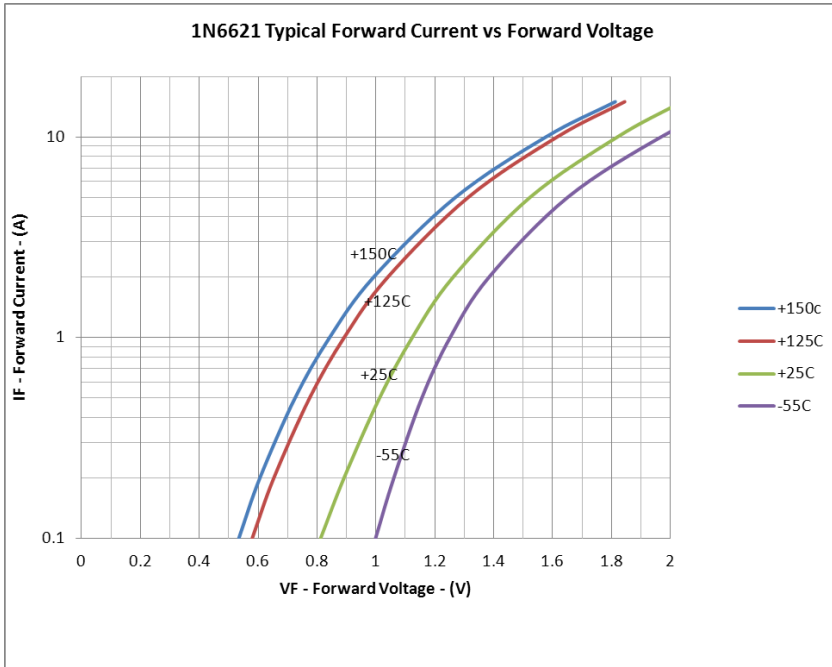
| Rating   | Symbol                            | Condition  | Max                                     | Units |
|--|-----------------------------------|--|---|-------|
| WORKING PEAK REVERSE VOLTAGE<br>1N6620, U, US<br>1N6621, U, US<br>1N6622, U, US<br>1N6623, U, US<br>1N6624, U, US<br>1N6625, U, US | V <sub>RWM</sub>                  |  | 200<br>400<br>600<br>800<br>900<br>1000 | Volts |
| AVERAGE RECTIFIED FORWARD CURRENT<br>1N6620, U, US thru 1N6622, U, US<br>1N6623, U, US thru 1N6625, U, US                          | I <sub>o</sub>                    |  | 1.2<br>1.0                              | Amps  |
| PEAK FORWARD SURGE CURRENT<br>1N6620, U, US thru 1N6624, U, US<br>1N6625, U, US  | I <sub>FSM</sub>                  | T <sub>p</sub> =8.3ms  | 20<br>15                                | A(pk) |
| MAXIMUM REVERSE CURRENT<br>1N6620, U, US thru 1N6624, U, US<br>1N6625, U, US   | I <sub>R</sub> @ V <sub>RWM</sub> | T <sub>j</sub> = 25 °C   | 0.5<br>1.0                              | μAmps |
| MAXIMUM REVERSE CURRENT<br>1N6620, U, US thru 1N6624, U, US<br>1N6625, U, US   | I <sub>R</sub> @ V <sub>RWM</sub> | T <sub>j</sub> = 150 °C  | 150<br>200                              | μAmps |
| MAX. PEAK FORWARD VOLTAGE (PULSED)<br>1N6620, U, US thru 1N6622, U, US<br>1N6623, U, US & 1N6624, U, US<br>1N6625, U, US           | V <sub>FM</sub>                   | I <sub>F</sub> =2.0A<br>I <sub>F</sub> =1.5μA<br>I <sub>F</sub> =1.5μA | 1.60<br>1.80<br>1.95                    | Volts |
| PEAK RECOVERY CURRENT<br>1N6620, U, US thru 1N6622, U, US<br>1N6623, U, US & 1N6624, U, US<br>1N6625, U, US                        | I <sub>RM</sub>                   | I <sub>F</sub> =2A,<br>100A/μ  | 3.5<br>4.2<br>5.0                       | A(pk) |
| MAXIMUM REVERSE RECOVERY TIME<br>1N6620, U, US thru 1N6622, U, US<br>1N6623, U, US & 1N6624, U, US<br>1N6625, U, US                | T <sub>rr</sub>                   | I <sub>F</sub> =0.5A<br>I <sub>RM</sub> =1.0A                          | 30<br>50<br>60                          | ns    |
| FORWARD RECOVERY VOLTAGE<br>1N6620, U, US thru 1N6622, U, US<br>1N6623, U, US & 1N6624, U, US<br>1N6625, U, US                     | V <sub>FRM</sub>                  | I <sub>F</sub> =0.5A<br>t <sub>r</sub> =12ns                           | 12<br>18<br>30                          | Volts |
| THERMAL RESISTANCE (Axial)<br>1N6620 thru 1N6625   | R <sub>θJL</sub>                  | L=.375   | 38                                      | °C/W  |
| THERMAL RESISTANCE (MELF)<br>1N6620U,US thru 1N6625U,US  | R <sub>θJEC</sub>                 | L=0  | 13                                      | °C/W  |

\*Sensitron equivalent diodes are manufactured and screened to MIL-PRF-19500 flow and guidelines starting from wafer fabrication through assembly and testing using our specification 7700-4093.

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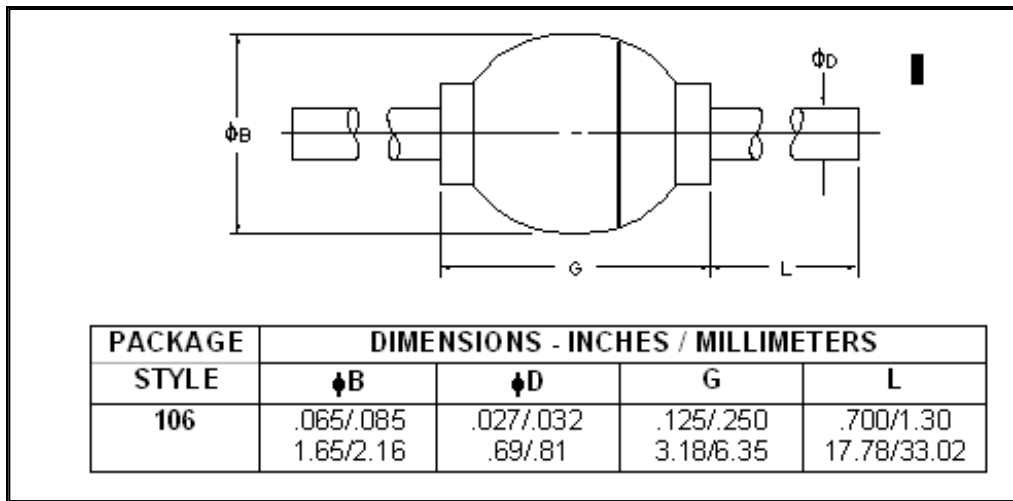
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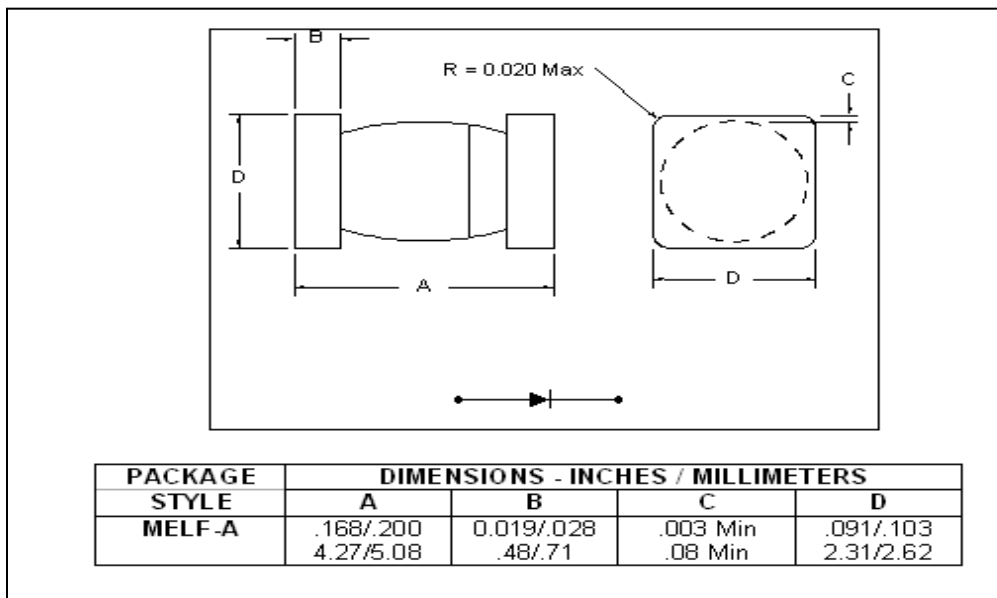
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**MECHANICAL DIMENSIONS In Inches / (mm)**

**AXIAL**



**MELF (Add "U" or "US" to Part Number)**



# **SENSITRON** **SEMICONDUCTOR**

1N6620/U/US thru 1N6625/U/US

**ULTRAFAST RECOVERY  
RECTIFIER**

## **TECHNICAL DATA DATA SHEET 5089, REV. A.2**

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:

| <b>Sensitron Screening Level</b> | <b>*Part Number--<br/>Leaded Package<br/>(example for 1N6620)</b> | <b>*Part Number--<br/>MELF Package<br/>(example for 1N6620)</b> |
|----------------------------------|---|---|
| <b>1N</b>                        | 1N6620  | 1N6620US or 1N6620US  |
| <b>JAN</b>                       | JAN1N6620   | JAN1N6620US or JAN1N6620U                                       |
| <b>JANTX</b>                     | JANTX1N6620   | JANTX1N6620US or JANTX1N6620U                                   |
| <b>JANTXV</b>                    | JANTXV1N6620  | JANTXV1N6620US or JANTXV1N6620U                                 |
| <b>JANS</b>                      | JANS1N6620  | JANS1N6620US or JANS1N6620U                                     |
| <b>SJ</b>                        | SJ6620  | SJ6620US or SJ6620U   |
| <b>SX</b>                        | SX6620  | SX6620US or SX6620U   |
| <b>SV</b>                        | SV6620  | SV6620US or SV6620U   |
| <b>SS</b>                        | SS6620  | SS6620US or SS6620U   |

\*Parts can also be ordered Tape & Reel

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