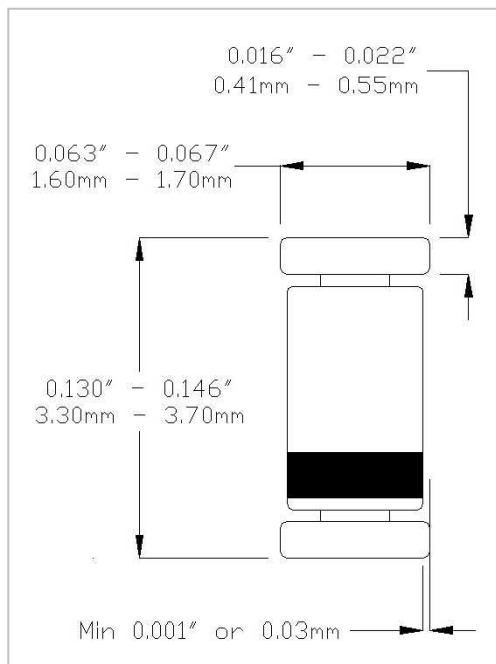


# 1N4531UR

## FEATURES

- 1N4531UR AVAILABLE IN JAN, JANTX, AND JANTXV PER MIL-PRF-19500/116
- SWITCHING DIODE
- METALLURGICALLY BONDED
- HERMETICALLY SEALED
- DOUBLE PLUG CONSTRUCTION



## MAXIMUM RATINGS AT 25 °C

|                                |                                        |
|--------------------------------|----------------------------------------|
| Operating Temperature:         | -65°C to +175°C                        |
| Storage Temperature:           | -65°C to +200°C                        |
| Surge Current A, sine 8.3mS:   | 1.0A                                   |
| Surge Current B, square 8.3mS: | 0.704A                                 |
| Total Power Dissipation:       | 500mW                                  |
| Operating Current:             | 125mA, T <sub>A</sub> = +25°C          |
| Derating Factor:               | 0.83mA/°C above T <sub>A</sub> = +25°C |
| D.C. Reverse Voltage (VRWM):   | 75V                                    |

## DC ELECTRICAL CHARACTERISTICS

| V <sub>F</sub> |                   |       |       | I <sub>R</sub> |        |        |        | V <sub>BR</sub> |                   |       |       |
|----------------|-------------------|-------|-------|----------------|--------|--------|--------|-----------------|-------------------|-------|-------|
| Ambient (°C)   | I <sub>F</sub> mA | Min V | Max V | Ambient (°C)   | V (dc) | Min μA | Max μA | Ambient (°C)    | I <sub>R</sub> μA | Min V | Max V |
| 25             | 10                | -     | 0.8   | 25             | 20     | -      | 0.025  | 25              | 100               | 100   | -     |
| 25             | 100               | -     | 1.2   | 25             | 75     | -      | 0.500  |                 |                   |       |       |
| 150            | 10                | -     | 0.8   | 150            | 20     | -      | 35.0   |                 |                   |       |       |
| -55            | 100               | -     | 1.3   | 150            | 75     | -      | 75.0   |                 |                   |       |       |

## DESIGN DATA

**Case:** Hermetically sealed glass package per MIL-PRF-19500/116 DO-213AA outline

**Lead Material:** Copper clad steel

**Lead Finish:** Tin/Lead

**Thermal Resistance (R<sub>θJEC</sub>):** 100°C/W maximum

**Thermal Impedance (Z<sub>θJX</sub>):** 70°C/W maximum

**Polarity:** Cathode end is banded.

## AC ELECTRICAL CHARACTERISTICS AT 25°C

|                                                                                   | Symbol | Min | Max |
|-----------------------------------------------------------------------------------|--------|-----|-----|
| Capacitance @ 0V                                                                  | pF     | -   | 4   |
| Capacitance @ 1.5V                                                                | pF     | -   | 2.8 |
| T <sub>RR</sub> @ I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>Rec</sub> = 1mA. | nsec   | -   | 5   |
| T <sub>FR</sub> @ I <sub>F</sub> = 50mA                                           | nsec   | -   | 20  |
| V <sub>FR</sub> @ I <sub>F</sub> = 50mA                                           | V(pk)  | -   | 5   |



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