

1N4614 THRU 1N4627

SILICON ZENER DIODE  
LOW NOISE  
1.8 VOLT THRU 6.2 VOLT  
250mW, 5% TOLERANCE



DO-35 CASE



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1N4614 series silicon Zener diode is designed for low leakage, low current, and low noise applications. Higher voltage devices are available in the 1N4099 series.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$ )

Power Dissipation

Operating and Storage Junction Temperature

**SYMBOL**

$P_D$

$T_J, T_{stg}$

250

-65 to +200

**UNITS**

mW

$^{\circ}\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^{\circ}\text{C}$ )  $V_F=1.0\text{V MAX @ } I_F=200\text{mA}$  (for all types)

| TYPE   | ZENER VOLTAGE<br>$V_Z @ I_{ZT}$ |     |       | TEST CURRENT  | MAXIMUM ZENER IMPEDANCE | MAXIMUM REVERSE CURRENT |     | MAXIMUM ZENER CURRENT | MAXIMUM NOISE DENSITY          |
|--------|---------------------------------|-----|-------|---------------|-------------------------|-------------------------|-----|-----------------------|--------------------------------|
|        | MIN                             | NOM | MAX   | $I_{ZT}$      | $Z_{ZT} @ I_{ZT}$       | $I_R @ V_R$             |     | $I_{ZM}$              | $N_D @ 250\mu\text{A}$         |
|        | V                               | V   | V     | $\mu\text{A}$ | $\Omega$                | $\mu\text{A}$           | V   | mA                    | $\mu\text{V}/\sqrt{\text{Hz}}$ |
| 1N4614 | 1.710                           | 1.8 | 1.890 | 250           | 1200                    | 7.5                     | 1.0 | 120                   | 1.0                            |
| 1N4615 | 1.900                           | 2.0 | 2.100 | 250           | 1250                    | 5.0                     | 1.0 | 110                   | 1.0                            |
| 1N4616 | 2.090                           | 2.2 | 2.310 | 250           | 1300                    | 4.0                     | 1.0 | 100                   | 1.0                            |
| 1N4617 | 2.280                           | 2.4 | 2.520 | 250           | 1400                    | 2.0                     | 1.0 | 95                    | 1.0                            |
| 1N4618 | 2.565                           | 2.7 | 2.835 | 250           | 1500                    | 1.0                     | 1.0 | 90                    | 1.0                            |
| 1N4619 | 2.850                           | 3.0 | 3.150 | 250           | 1600                    | 0.8                     | 1.0 | 85                    | 1.0                            |
| 1N4620 | 3.135                           | 3.3 | 3.465 | 250           | 1650                    | 7.5                     | 1.5 | 80                    | 1.0                            |
| 1N4621 | 3.420                           | 3.6 | 3.780 | 250           | 1700                    | 7.5                     | 2.0 | 75                    | 1.0                            |
| 1N4622 | 3.705                           | 3.9 | 4.095 | 250           | 1650                    | 5.0                     | 2.0 | 70                    | 1.0                            |
| 1N4623 | 4.085                           | 4.3 | 4.515 | 250           | 1600                    | 4.0                     | 2.0 | 65                    | 1.0                            |
| 1N4624 | 4.465                           | 4.7 | 4.935 | 250           | 1550                    | 10                      | 3.0 | 60                    | 1.0                            |
| 1N4625 | 4.845                           | 5.1 | 5.355 | 250           | 1500                    | 10                      | 3.0 | 55                    | 2.0                            |
| 1N4626 | 5.320                           | 5.6 | 5.880 | 250           | 1400                    | 10                      | 4.0 | 50                    | 4.0                            |
| 1N4627 | 5.890                           | 6.2 | 6.510 | 250           | 1200                    | 10                      | 5.0 | 45                    | 5.0                            |

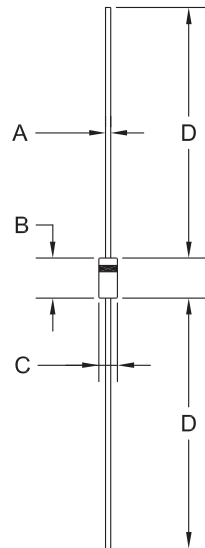
R3 (1-May 2013)

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DO-35 CASE - MECHANICAL OUTLINE



R1

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0.018  | 0.022 | 0.46        | 0.56 |
| B          | 0.120  | 0.200 | 3.05        | 5.08 |
| C          | 0.060  | 0.090 | 1.52        | 2.29 |
| D          | 1.000  | -     | 25.40       | -    |

DO-35 (REV: R1)

MARKING: FULL PART NUMBER

R3 (1-May 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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