

1N746A THRU 1N759A

SILICON ZENER DIODES  
500mW, 3.3 THRU 12 VOLT  
5% TOLERANCE



DO-35 CASE



www.centrasemi.com

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N746A series silicon Zener diode is a highly reliable voltage regulator designed for use in industrial, commercial, entertainment and computer applications.

#### MARKING: FULL PART NUMBER

#### MAXIMUM RATINGS: ( $T_L=75^\circ\text{C}$ )

Power Dissipation

Operating and Storage Junction Temperature

#### SYMBOL

$P_D$

$T_J, T_{stg}$

500

-65 to +200

#### UNITS

mW

$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS: ( $T_A=25^\circ\text{C}$ ) $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$ (for all types)

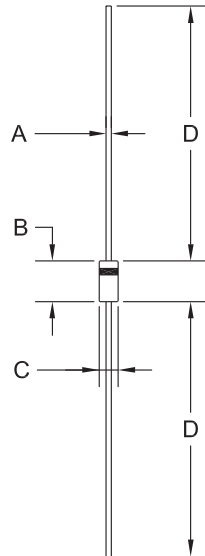
| Type   | Zener Voltage<br>$V_Z @ I_{ZT}$ |     |       | Test Current | Maximum Zener Impedance | Maximum Reverse Leakage Current |     | Maximum Reverse Leakage Current<br>@ $T_A=150^\circ\text{C}$ |     | Maximum Regulator Current |
|--------|---------------------------------|-----|-------|--------------|-------------------------|---------------------------------|-----|--------------------------------------------------------------|-----|---------------------------|
|        | MIN                             | NOM | MAX   | $I_{ZT}$     | $Z_{ZT} @ I_{ZT}$       | $I_R @ V_R$                     |     | $I_R @ V_R$                                                  |     | $I_{ZM}$                  |
|        | V                               | V   | V     | mA           | $\Omega$                | $\mu\text{A}$                   | V   | $\mu\text{A}$                                                | V   | mA                        |
| 1N746A | 3.135                           | 3.3 | 3.465 | 20           | 28                      | 10                              | 1.0 | 30                                                           | 1.0 | 110                       |
| 1N747A | 3.420                           | 3.6 | 3.780 | 20           | 24                      | 10                              | 1.0 | 30                                                           | 1.0 | 100                       |
| 1N748A | 3.705                           | 3.9 | 4.095 | 20           | 23                      | 10                              | 1.0 | 30                                                           | 1.0 | 95                        |
| 1N749A | 4.085                           | 4.3 | 4.515 | 20           | 22                      | 2.0                             | 1.0 | 30                                                           | 1.0 | 85                        |
| 1N750A | 4.465                           | 4.7 | 4.935 | 20           | 19                      | 2.0                             | 1.0 | 30                                                           | 1.0 | 75                        |
| 1N751A | 4.845                           | 5.1 | 5.355 | 20           | 17                      | 1.0                             | 1.0 | 20                                                           | 1.0 | 70                        |
| 1N752A | 5.320                           | 5.6 | 5.880 | 20           | 11                      | 1.0                             | 1.0 | 20                                                           | 1.0 | 65                        |
| 1N753A | 5.890                           | 6.2 | 6.510 | 20           | 7.0                     | 0.1                             | 1.0 | 20                                                           | 1.0 | 60                        |
| 1N754A | 6.460                           | 6.8 | 7.140 | 20           | 5.0                     | 0.1                             | 1.0 | 20                                                           | 1.0 | 55                        |
| 1N755A | 7.125                           | 7.5 | 7.875 | 20           | 6.0                     | 0.1                             | 1.0 | 20                                                           | 1.0 | 50                        |
| 1N756A | 7.790                           | 8.2 | 8.610 | 20           | 8.0                     | 0.1                             | 1.0 | 20                                                           | 1.0 | 45                        |
| 1N757A | 8.645                           | 9.1 | 9.555 | 20           | 10                      | 0.1                             | 1.0 | 20                                                           | 1.0 | 40                        |
| 1N758A | 9.50                            | 10  | 10.50 | 20           | 17                      | 0.1                             | 1.0 | 20                                                           | 1.0 | 35                        |
| 1N759A | 11.40                           | 12  | 12.60 | 20           | 30                      | 0.1                             | 1.0 | 20                                                           | 1.0 | 30                        |

R1 (17-December 2013)

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DO-35 CASE - MECHANICAL OUTLINE



| 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

R1

R1 (17-December 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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