

1N4728D THRU 1N4764D

SILICON ZENER DIODES
1.0 WATT, 3.3 THRU 100 VOLT
1% TOLERANCE

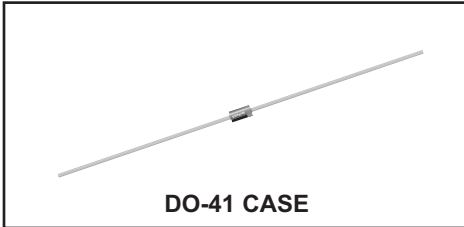


www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N4728D series silicon Zener diode is a highly reliable voltage regulator designed for use in industrial, commercial, entertainment and computer applications.

MARKING: FULL PART NUMBER



DO-41 CASE

MAXIMUM RATINGS:

Power Dissipation ($T_A=50^\circ\text{C}$)
Operating and Storage Temperature

SYMBOL

P_D
 T_J, T_{stg}

UNITS

W
 $^\circ\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$) $V_F=1.2\text{V MAX @ } I_F=200\text{mA}$ (for all types)

| TYPE | ZENER VOLTAGE $V_Z @ I_{ZT}$ | | | TEST CURRENT I_{ZT} | MAXIMUM ZENER IMPEDANCE | | | MAXIMUM REVERSE CURRENT | | MAXIMUM DC CURRENT I_{ZM} | MAXIMUM TEMPERATURE COEFFICIENT $@ I_{ZT}$ |
|---------|---------------------------------|-----|-------|--------------------------|-------------------------|-------------------|-------------|-------------------------|---------------|--------------------------------|---|
| | MIN | NOM | MAX | | $Z_{ZT} @ I_{ZT}$ | $Z_{ZK} @ I_{ZK}$ | $I_R @ V_R$ | | | | |
| | V | V | V | | mA | Ω | Ω | mA | μA | | |
| 1N4728D | 3.267 | 3.3 | 3.333 | 76 | 10 | 400 | 1.0 | 100 | 1.0 | 1380 | -0.08 to -0.05 |
| 1N4729D | 3.564 | 3.6 | 3.636 | 69 | 10 | 400 | 1.0 | 100 | 1.0 | 1260 | -0.08 to -0.05 |
| 1N4730D | 3.861 | 3.9 | 3.939 | 64 | 9.0 | 400 | 1.0 | 50 | 1.0 | 1190 | -0.07 to -0.02 |
| 1N4731D | 4.257 | 4.3 | 4.343 | 58 | 9.0 | 400 | 1.0 | 10 | 1.0 | 1070 | -0.07 to -0.01 |
| 1N4732D | 4.653 | 4.7 | 4.747 | 53 | 8.0 | 500 | 1.0 | 10 | 1.0 | 970 | -0.03 to +0.04 |
| 1N4733D | 5.049 | 5.1 | 5.151 | 49 | 7.0 | 550 | 1.0 | 10 | 1.0 | 890 | -0.01 to +0.04 |
| 1N4734D | 5.544 | 5.6 | 5.656 | 45 | 5.0 | 600 | 1.0 | 10 | 2.0 | 810 | 0 to +0.045 |
| 1N4735D | 6.138 | 6.2 | 6.262 | 41 | 2.0 | 700 | 1.0 | 10 | 3.0 | 730 | +0.01 to +0.055 |
| 1N4736D | 6.732 | 6.8 | 6.868 | 37 | 3.5 | 700 | 1.0 | 10 | 4.0 | 660 | +0.015 to +0.06 |
| 1N4737D | 7.425 | 7.5 | 7.575 | 34 | 4.0 | 700 | 0.5 | 10 | 5.0 | 605 | +0.02 to +0.065 |
| 1N4738D | 8.118 | 8.2 | 8.282 | 31 | 4.5 | 700 | 0.5 | 10 | 6.0 | 550 | +0.03 to +0.07 |
| 1N4739D | 9.009 | 9.1 | 9.191 | 28 | 5.0 | 700 | 0.5 | 10 | 7.0 | 500 | +0.035 to +0.075 |
| 1N4740D | 9.900 | 10 | 10.10 | 25 | 7.0 | 700 | 0.25 | 10 | 7.6 | 454 | +0.04 to +0.08 |
| 1N4741D | 10.89 | 11 | 11.11 | 23 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 414 | +0.045 to +0.08 |
| 1N4742D | 11.88 | 12 | 12.12 | 21 | 9.0 | 700 | 0.25 | 5.0 | 9.1 | 380 | +0.045 to +0.085 |
| 1N4743D | 12.87 | 13 | 13.13 | 19 | 10 | 700 | 0.25 | 5.0 | 9.9 | 344 | +0.05 to +0.085 |
| 1N4744D | 14.85 | 15 | 15.15 | 17 | 14 | 700 | 0.25 | 5.0 | 11.4 | 304 | +0.055 to +0.09 |
| 1N4745D | 15.84 | 16 | 16.16 | 15.5 | 16 | 700 | 0.25 | 5.0 | 12.2 | 285 | +0.055 to +0.09 |
| 1N4746D | 17.82 | 18 | 18.18 | 14 | 20 | 750 | 0.25 | 5.0 | 13.7 | 250 | +0.06 to +0.09 |
| 1N4747D | 19.80 | 20 | 20.20 | 12.5 | 22 | 750 | 0.25 | 5.0 | 15.2 | 225 | +0.06 to +0.09 |
| 1N4748D | 21.78 | 22 | 22.22 | 11.5 | 23 | 750 | 0.25 | 5.0 | 16.7 | 205 | +0.06 to +0.095 |
| 1N4749D | 23.76 | 24 | 24.24 | 10.5 | 25 | 750 | 0.25 | 5.0 | 18.2 | 190 | +0.06 to +0.095 |
| 1N4750D | 26.73 | 27 | 27.27 | 9.5 | 35 | 750 | 0.25 | 5.0 | 20.6 | 170 | +0.06 to +0.095 |

R0 (7-January 2014)

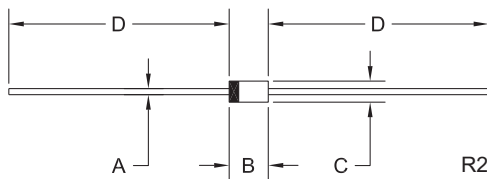
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SILICON ZENER DIODES
1.0 WATT, 3.3 THRU 100 VOLT
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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$) $V_F=1.2\text{V MAX @ } I_F=200\text{mA}$ (for all types)

| TYPE | ZENER VOLTAGE $V_Z @ I_{ZT}$ | | | TEST CURRENT I_{ZT} mA | MAXIMUM ZENER IMPEDANCE | | | MAXIMUM REVERSE CURRENT | | MAXIMUM DC CURRENT I_{ZM} mA | MAXIMUM TEMPERATURE COEFFICIENT @ I_{ZT} $\frac{\partial V_Z}{\partial T}$ %/ $^\circ\text{C}$ |
|---------|---------------------------------|-----|-------|-----------------------------------|----------------------------|-------------------|-------------|-------------------------------|------|--|---|
| | MIN | NOM | MAX | | $Z_{ZT} @ I_{ZT}$ | $Z_{ZK} @ I_{ZK}$ | $I_R @ V_R$ | V_R | | | |
| | V | V | V | | Ω | Ω mA | | | | | |
| 1N4751D | 29.70 | 30 | 30.30 | 8.5 | 40 | 1.0K | 0.25 | 5.0 | 22.8 | 150 | +0.06 to +0.095 |
| 1N4752D | 32.67 | 33 | 33.33 | 7.5 | 45 | 1.0K | 0.25 | 5.0 | 25.1 | 135 | +0.06 to +0.095 |
| 1N4753D | 35.64 | 36 | 36.36 | 7.0 | 50 | 1.0K | 0.25 | 5.0 | 27.4 | 125 | +0.06 to +0.095 |
| 1N4754D | 38.61 | 39 | 39.39 | 6.5 | 60 | 1.0K | 0.25 | 5.0 | 29.7 | 115 | +0.06 to +0.095 |
| 1N4755D | 42.57 | 43 | 43.43 | 6.0 | 70 | 1.5K | 0.25 | 5.0 | 32.7 | 110 | +0.06 to +0.095 |
| 1N4756D | 46.53 | 47 | 47.47 | 5.5 | 80 | 1.5K | 0.25 | 5.0 | 35.8 | 95 | +0.06 to +0.095 |
| 1N4757D | 50.49 | 51 | 51.51 | 5.0 | 95 | 1.5K | 0.25 | 5.0 | 38.8 | 90 | +0.06 to +0.095 |
| 1N4758D | 55.44 | 56 | 56.56 | 4.5 | 110 | 2.0K | 0.25 | 5.0 | 42.6 | 80 | +0.06 to +0.095 |
| 1N4759D | 61.38 | 62 | 62.62 | 4.0 | 125 | 2.0K | 0.25 | 5.0 | 47.1 | 70 | +0.06 to +0.095 |
| 1N4760D | 67.32 | 68 | 68.68 | 3.7 | 150 | 2.0K | 0.25 | 5.0 | 51.7 | 65 | +0.06 to +0.095 |
| 1N4761D | 74.25 | 75 | 75.75 | 3.3 | 175 | 2.0K | 0.25 | 5.0 | 56.0 | 60 | +0.06 to +0.095 |
| 1N4762D | 81.18 | 82 | 82.82 | 3.0 | 200 | 3.0K | 0.25 | 5.0 | 62.2 | 55 | +0.06 to +0.095 |
| 1N4763D | 90.09 | 91 | 91.91 | 2.8 | 250 | 3.0K | 0.25 | 5.0 | 69.2 | 50 | +0.06 to +0.095 |
| 1N4764D | 99.00 | 100 | 101.0 | 2.5 | 350 | 3.0K | 0.25 | 5.0 | 76.0 | 45 | +0.06 to +0.095 |

DO-41 CASE - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.026 | 0.034 | 0.65 | 0.86 |
| B | 0.138 | 0.205 | 3.50 | 5.21 |
| C | 0.079 | 0.107 | 2.00 | 2.72 |
| D | 1.000 | - | 25.40 | - |

DO-41 (REV: R2)

R0 (7-January 2014)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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