**1N4728A THRU 1N4764A**

**SILICON ZENER DIODES**
**1.0 WATT, 3.3 THRU 100 VOLT**
**5% TOLERANCE**



**DO-41 CASE**

Central Semiconductor Corp.

www.centralsemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1N4728A 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:** | **SYMBOL** | | **UNITS** |
|---|---|---|---|
| Power Dissipation ($T_A$=50°C) | $P_D$ | 1.0 | W |
| Operating and Storage Temperature | $T_J$, $T_{stg}$ | -65 to +200 | °C |

**ELECTRICAL CHARACTERISTICS:** ($T_A$=25°C) $V_F$=1.2V MAX @ $I_F$=200mA (for all types)

| TYPE | ZENER VOLTAGE $V_Z$ @ $I_{ZT}$ | | | TEST CURRENT | MAXIMUM ZENER IMPEDANCE | | | MAXIMUM REVERSE CURRENT | | MAXIMUM DC CURRENT | MAXIMUM TEMPERATURE COEFFICIENT @ $I_{ZT}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MIN | NOM | MAX | $I_{ZT}$ | $Z_{ZT}$ @ $I_{ZT}$ | $Z_{ZK}$ @ $I_{ZK}$ | | $I_R$ @ $V_R$ | | $I_{ZM}$ | $\Theta V_Z$ |
| | V | V | V | mA | Ω | Ω | mA | μA | V | mA | % / °C |
| 1N4728A | 3.135 | 3.3 | 3.465 | 76 | 10 | 400 | 1.0 | 100 | 1.0 | 1380 | -0.08 to -0.05 |
| 1N4729A | 3.420 | 3.6 | 3.780 | 69 | 10 | 400 | 1.0 | 100 | 1.0 | 1260 | -0.08 to -0.05 |
| 1N4730A | 3.705 | 3.9 | 4.095 | 64 | 9.0 | 400 | 1.0 | 50 | 1.0 | 1190 | -0.07 to -0.02 |
| 1N4731A | 4.085 | 4.3 | 4.515 | 58 | 9.0 | 400 | 1.0 | 10 | 1.0 | 1070 | -0.07 to -0.01 |
| 1N4732A | 4.465 | 4.7 | 4.935 | 53 | 8.0 | 500 | 1.0 | 10 | 1.0 | 970 | -0.03 to +0.04 |
| 1N4733A | 4.845 | 5.1 | 5.355 | 49 | 7.0 | 550 | 1.0 | 10 | 1.0 | 890 | -0.01 to +0.04 |
| 1N4734A | 5.320 | 5.6 | 5.880 | 45 | 5.0 | 600 | 1.0 | 10 | 2.0 | 810 | 0 to +0.045 |
| 1N4735A | 5.890 | 6.2 | 6.510 | 41 | 2.0 | 700 | 1.0 | 10 | 3.0 | 730 | +0.01 to +0.055 |
| 1N4736A | 6.460 | 6.8 | 7.140 | 37 | 3.5 | 700 | 1.0 | 10 | 4.0 | 660 | +0.015 to +0.06 |
| 1N4737A | 7.125 | 7.5 | 7.875 | 34 | 4.0 | 700 | 0.5 | 10 | 5.0 | 605 | +0.02 to +0.065 |
| 1N4738A | 7.790 | 8.2 | 8.610 | 31 | 4.5 | 700 | 0.5 | 10 | 6.0 | 550 | +0.03 to +0.07 |
| 1N4739A | 8.645 | 9.1 | 9.555 | 28 | 5.0 | 700 | 0.5 | 10 | 7.0 | 500 | +0.035 to +0.075 |
| 1N4740A | 9.500 | 10 | 10.50 | 25 | 7.0 | 700 | 0.25 | 10 | 7.6 | 454 | +0.04 to +0.08 |
| 1N4741A | 10.45 | 11 | 11.55 | 23 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 414 | +0.045 to +0.08 |
| 1N4742A | 11.40 | 12 | 12.60 | 21 | 9.0 | 700 | 0.25 | 5.0 | 9.1 | 380 | +0.045 to +0.085 |
| 1N4743A | 12.35 | 13 | 13.65 | 19 | 10 | 700 | 0.25 | 5.0 | 9.9 | 344 | +0.05 to +0.085 |
| 1N4744A | 14.25 | 15 | 15.75 | 17 | 14 | 700 | 0.25 | 5.0 | 11.4 | 304 | +0.055 to +0.09 |
| 1N4745A | 15.20 | 16 | 16.80 | 15.5 | 16 | 700 | 0.25 | 5.0 | 12.2 | 285 | +0.055 to +0.09 |
| 1N4746A | 17.10 | 18 | 18.90 | 14 | 20 | 750 | 0.25 | 5.0 | 13.7 | 250 | +0.06 to +0.09 |
| 1N4747A | 19.00 | 20 | 21.00 | 12.5 | 22 | 750 | 0.25 | 5.0 | 15.2 | 225 | +0.06 to +0.09 |
| 1N4748A | 20.90 | 22 | 23.10 | 11.5 | 23 | 750 | 0.25 | 5.0 | 16.7 | 205 | +0.06 to +0.095 |
| 1N4749A | 22.80 | 24 | 25.20 | 10.5 | 25 | 750 | 0.25 | 5.0 | 18.2 | 190 | +0.06 to +0.095 |
| 1N4750A | 25.65 | 27 | 28.35 | 9.5 | 35 | 750 | 0.25 | 5.0 | 20.6 | 170 | +0.06 to +0.095 |

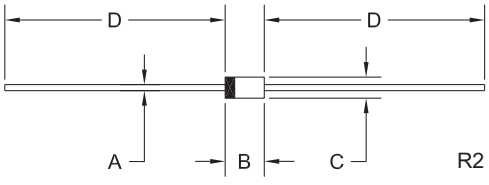
**1N4728A THRU 1N4764A**

**SILICON ZENER DIODES**
**1.0 WATT, 3.3 THRU 100 VOLT**
**5% TOLERANCE**

**ELECTRICAL CHARACTERISTICS - Continued:** ($T_A$=25°C) $V_F$=1.2V MAX @ $I_F$=200mA (for all types)

| TYPE | ZENER VOLTAGE $V_Z$ @ $I_{ZT}$ | | | TEST CURRENT | MAXIMUM ZENER IMPEDANCE | | | MAXIMUM REVERSE CURRENT | | MAXIMUM DC CURRENT | MAXIMUM TEMPERATURE COEFFICIENT @ $I_{ZT}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MIN | NOM | MAX | $I_{ZT}$ | $Z_{ZT}$ @ $I_{ZT}$ | $Z_{ZK}$ @ $I_{ZK}$ | | $I_R$ @ $V_R$ | | $I_{ZM}$ | $\Theta V_Z$ |
| | V | V | V | mA | Ω | Ω | mA | μA | V | mA | % / °C |
| 1N4751A | 28.50 | 30 | 31.50 | 8.5 | 40 | 1.0K | 0.25 | 5.0 | 22.8 | 150 | +0.06 to +0.095 |
| 1N4752A | 31.35 | 33 | 34.65 | 7.5 | 45 | 1.0K | 0.25 | 5.0 | 25.1 | 135 | +0.06 to +0.095 |
| 1N4753A | 34.20 | 36 | 37.80 | 7.0 | 50 | 1.0K | 0.25 | 5.0 | 27.4 | 125 | +0.06 to +0.095 |
| 1N4754A | 37.05 | 39 | 40.95 | 6.5 | 60 | 1.0K | 0.25 | 5.0 | 29.7 | 115 | +0.06 to +0.095 |
| 1N4755A | 40.85 | 43 | 45.15 | 6.0 | 70 | 1.5K | 0.25 | 5.0 | 32.7 | 110 | +0.06 to +0.095 |
| 1N4756A | 44.65 | 47 | 49.35 | 5.5 | 80 | 1.5K | 0.25 | 5.0 | 35.8 | 95 | +0.06 to +0.095 |
| 1N4757A | 48.45 | 51 | 53.55 | 5.0 | 95 | 1.5K | 0.25 | 5.0 | 38.8 | 90 | +0.06 to +0.095 |
| 1N4758A | 53.20 | 56 | 58.80 | 4.5 | 110 | 2.0K | 0.25 | 5.0 | 42.6 | 80 | +0.06 to +0.095 |
| 1N4759A | 58.90 | 62 | 65.10 | 4.0 | 125 | 2.0K | 0.25 | 5.0 | 47.1 | 70 | +0.06 to +0.095 |
| 1N4760A | 64.60 | 68 | 71.40 | 3.7 | 150 | 2.0K | 0.25 | 5.0 | 51.7 | 65 | +0.06 to +0.095 |
| 1N4761A | 71.25 | 75 | 78.75 | 3.3 | 175 | 2.0K | 0.25 | 5.0 | 56.0 | 60 | +0.06 to +0.095 |
| 1N4762A | 77.90 | 82 | 86.10 | 3.0 | 200 | 3.0K | 0.25 | 5.0 | 62.2 | 55 | +0.06 to +0.095 |
| 1N4763A | 86.45 | 91 | 95.55 | 2.8 | 250 | 3.0K | 0.25 | 5.0 | 69.2 | 50 | +0.06 to +0.095 |
| 1N4764A | 95.00 | 100 | 105.0 | 2.5 | 350 | 3.0K | 0.25 | 5.0 | 76.0 | 45 | +0.06 to +0.095 |

## DO-41 CASE - MECHANICAL OUTLINE




| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | 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)

## 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

**Corporate Headquarters & Customer Support Team**

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centralsemi.com

**Worldwide Field Representatives:**
www.centralsemi.com/wwreps

**Worldwide Distributors:**
www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms

http://www.centralsemi.com

# Product End of Life Notification

| | |
|---|---|
| **PDN ID:** | PDN01045 |
| **Notification Date:** | 8/19/16 |
| **Last Buy Date:** | 2/19/17 |
| **Last Shipment Date** | 8/19/17 |

Summary:The 1N4728A, 1N4729A, 1N4730A, and 1N4731A, 1 watt Zener diodes in the DO-41 case are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

| Central Part Number | Replacement |
|---|---|
| 1N4728A BK | N/A |
| 1N4728A TR | N/A |
| 1N4729A BK | N/A |
| 1N4729A TR | N/A |
| 1N4730A BK | N/A |
| 1N4730A TR | N/A |
| 1N4730C BK | N/A |
| 1N4731A BK | N/A |
| 1N4731A TR | N/A |

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

Central Semiconductor Corp.

http://www.centralsemi.com

# Product End of Life Notification

| | |
|---|---|
| **PDN ID:** | PDN01010 Rev:001 |
| **Notification Date:** | 2/15/19 |
| **Last Buy Date:** | 5/02/16 |
| **Last Shipment Date** | 11/02/16 |

Summary:1 watt, high voltage (75V thru 100V), glass body Zener diodes manufactured in the DO-41 and MELF packages are discontinued and now classified as End of Life (EOL). Rev:001 of PDN#010010, February 15, 2019, is being issued to add 1N4761A omitted from the original PDN.

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

| Central Part Number | Replacement |
|---|---|
| CLL4762A BK | N/A, Stock Only |
| CLL4762A TR | N/A, Stock Only |
| CLL4762C BK | N/A, Stock Only |
| CLL4762C TR | N/A, Stock Only |
| CLL4763A BK | N/A, Stock Only |
| CLL4763A TR | N/A, Stock Only |
| CLL4764 TR | N/A, Stock Only |
| CLL4764A BK | N/A, Stock Only |
| CLL4764A TR | N/A, Stock Only |
| 1N4761A BK | N/A, Stock Only |
| 1N4761A TR | N/A, Stock Only |
| 1N4762A BK | N/A, Stock Only |
| 1N4762A TR | N/A, Stock Only |
| 1N4763A BK | N/A, Stock Only |
| 1N4763A TR | N/A, Stock Only |
| 1N4764 BK | N/A, Stock Only |
| 1N4764 TR | N/A, Stock Only |
| 1N4764A BK | N/A, Stock Only |
| 1N4764A TR | N/A, Stock Only |

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