

Zener Diodes

1N4728A - 1N4758A

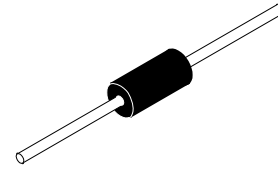
ABSOLUTE MAXIMUM RATINGS (Note 1)

T_a = 25°C unless otherwise noted

| Symbol | Parameter | Value | Unit |
|-----------------------------------|--|-------------|-------|
| P _D | Power Dissipation @ TL ≤ 50°C, Lead Length = 3/8" | 1.0 | W |
| | Derate above 50°C | 6.67 | mW/°C |
| T _J , T _{STG} | Operating and Storage Temperature Range | -65 to +200 | °C |

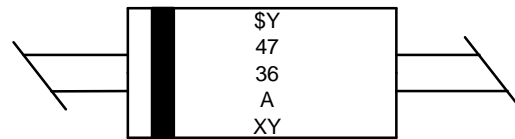
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

- These ratings are limiting values above which the serviceability of the diode may be impaired.



AXIAL LEAD
CASE 017AH

MARKING DIAGRAM



\$Y = Logo
 4736A = Specific Device Code
 XY = Date Code

ORDERING INFORMATION

See detailed ordering and shipping information on page 3 of this data sheet.

1N4728A – 1N4758A

ELECTRICAL CHARACTERISTICS $T_a = 25^\circ\text{C}$ unless otherwise noted

| Device | V_Z (V) @ I_Z (Note 2) | | | Test Current I_Z (mA) | Max. Zener Impedance | | | Leakage Current | | Non-Repetitive Peak Reverse Current I_{ZSM} (mA) (Note 3) |
|---------|----------------------------|------|-------|-------------------------|----------------------------|----------------------------------|---------------|-------------------------|-----------|---|
| | Min. | Typ. | Max. | | Z_Z @ I_Z (Ω) | Z_{ZK} @ I_{ZK} (Ω) | I_{ZK} (mA) | I_R (μA) | V_R (V) | |
| 1N4728A | 3.135 | 3.3 | 3.465 | 76 | 10 | 400 | 1 | 100 | 1 | 1380 |
| 1N4732A | 4.465 | 4.7 | 4.935 | 53 | 8 | 500 | 1 | 10 | 1 | 970 |
| 1N4733A | 4.845 | 5.1 | 5.355 | 49 | 7 | 550 | 1 | 10 | 1 | 890 |
| 1N4734A | 5.32 | 5.6 | 5.88 | 45 | 5 | 600 | 1 | 10 | 2 | 810 |
| 1N4735A | 5.89 | 6.2 | 6.51 | 41 | 2 | 700 | 1 | 10 | 3 | 730 |
| 1N4736A | 6.46 | 6.8 | 7.14 | 37 | 3.5 | 700 | 1 | 10 | 4 | 660 |
| 1N4737A | 7.125 | 7.5 | 7.875 | 34 | 4 | 700 | 0.5 | 10 | 5 | 605 |
| 1N4738A | 7.79 | 8.2 | 8.61 | 31 | 4.5 | 700 | 0.5 | 10 | 6 | 550 |
| 1N4739A | 8.645 | 9.1 | 9.555 | 28 | 5 | 700 | 0.5 | 10 | 7 | 500 |
| 1N4740A | 9.5 | 10 | 10.5 | 25 | 7 | 700 | 0.25 | 10 | 7.6 | 454 |
| 1N4741A | 10.45 | 11 | 11.55 | 23 | 8 | 700 | 0.25 | 5 | 8.4 | 414 |
| 1N4742A | 11.4 | 12 | 12.6 | 21 | 9 | 700 | 0.25 | 5 | 9.1 | 380 |
| 1N4743A | 12.35 | 13 | 13.65 | 19 | 10 | 700 | 0.25 | 5 | 9.9 | 344 |
| 1N4744A | 14.25 | 15 | 15.75 | 17 | 14 | 700 | 0.25 | 5 | 11.4 | 304 |
| 1N4745A | 15.2 | 16 | 16.8 | 15.5 | 16 | 700 | 0.25 | 5 | 12.2 | 285 |
| 1N4746A | 17.1 | 18 | 18.9 | 14 | 20 | 750 | 0.25 | 5 | 13.7 | 250 |
| 1N4747A | 19 | 20 | 21 | 12.5 | 22 | 750 | 0.25 | 5 | 15.2 | 225 |
| 1N4748A | 20.9 | 22 | 23.1 | 11.5 | 23 | 750 | 0.25 | 5 | 16.7 | 205 |
| 1N4749A | 22.8 | 24 | 25.2 | 10.5 | 25 | 750 | 0.25 | 5 | 18.2 | 190 |
| 1N4750A | 25.65 | 27 | 28.35 | 9.5 | 35 | 750 | 0.25 | 5 | 20.6 | 170 |
| 1N4751A | 28.5 | 30 | 31.5 | 8.5 | 40 | 1000 | 0.25 | 5 | 22.8 | 150 |
| 1N4752A | 31.35 | 33 | 34.65 | 7.5 | 45 | 1000 | 0.25 | 5 | 25.1 | 135 |
| 1N4753A | 34.2 | 36 | 37.8 | 7 | 50 | 1000 | 0.25 | 5 | 27.4 | 125 |
| 1N4754A | 37.05 | 39 | 40.95 | 6.5 | 60 | 1000 | 0.25 | 5 | 29.7 | 115 |
| 1N4755A | 40.85 | 43 | 45.15 | 6 | 70 | 1500 | 0.25 | 5 | 32.7 | 110 |
| 1N4756A | 44.65 | 47 | 49.35 | 5.5 | 80 | 1500 | 0.25 | 5 | 35.8 | 95 |
| 1N4757A | 48.45 | 51 | 53.55 | 5 | 95 | 1500 | 0.25 | 5 | 38.8 | 90 |
| 1N4758A | 53.2 | 56 | 58.8 | 4.5 | 110 | 2000 | 0.25 | 5 | 42.6 | 80 |

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

NOTES:

2. Zener Voltage (V_Z).
The zener voltage is measured with the device junction in the thermal equilibrium at the lead temperature (T_L) at $30^\circ\text{C} \pm 1^\circ\text{C}$ and 3/8" lead length.
3. 2 Square wave Reverse Surge at 8.3 ms soak time.

1N4728A – 1N4758A

TOP MARKING AND ORDERING INFORMATION

| Device | Top Marking | | | | | Package | Shipping† |
|--------------|-------------|--------|--------|--------|--------|---|----------------------|
| | Line 1 | Line 2 | Line 3 | Line 4 | Line 5 | | |
| 1N4728A | LOGO | 47 | 28 | A | XY | Axial Lead (Pb – Free / Halide Free) | 3000 / Bulk Bag |
| 1N4728A–T50A | | | | | | | 3000 / Fan–Fold |
| 1N4728ATR | | | | | | | 3000 / Tape and Reel |
| 1N4732A | | | 32 | | | | 3000 / Bulk Bag |
| 1N4732A–T50A | | | | | | | 3000 / Fan–Fold |
| 1N4732ATR | | | | | | | 3000 / Tape and Reel |
| 1N4733A | | | 33 | | | | 3000 / Bulk Bag |
| 1N4733A–T50A | | | | | | | 3000 / Fan–Fold |
| 1N4733A–T50R | | | | | | | 3000 / Tape and Reel |
| 1N4733ATR | | | 34 | | | | 3000 / Tape and Reel |
| 1N4734A | | | | | | | 3000 / Bulk Bag |
| 1N4734A–T50A | | | | | | | 3000 / Fan–Fold |
| 1N4734A–T50R | | | 35 | | | | 3000 / Tape and Reel |
| 1N4734ATR | | | | | | | 3000 / Tape and Reel |
| 1N4735A | | | | | | | 3000 / Bulk Bag |
| 1N4735A–T50A | | | 36 | | | | 3000 / Fan–Fold |
| 1N4735A–T50R | | | | | | | 3000 / Tape and Reel |
| 1N4735ATR | | | | | | | 3000 / Tape and Reel |
| 1N4736A | | | 37 | | | | 3000 / Bulk Bag |
| 1N4736A–T50A | | | | | | | 3000 / Fan–Fold |
| 1N4736A–T50R | | | | | | | 3000 / Tape and Reel |
| 1N4736ATR | | | 38 | | | | 3000 / Tape and Reel |
| 1N4737A | | | | | | | 3000 / Bulk Bag |
| 1N4737A–T50A | | | | | | | 3000 / Fan–Fold |
| 1N4737ATR | | | 39 | | | | 3000 / Tape and Reel |
| 1N4738A | | | | | | | 3000 / Bulk Bag |
| 1N4738A–T50A | | | | | | | 3000 / Fan–Fold |
| 1N4738A–T50R | | | 40 | | | | 3000 / Tape and Reel |
| 1N4738ATR | | | | | | | 3000 / Tape and Reel |
| 1N4739A | | | | | | | 3000 / Bulk Bag |
| 1N4739A–T50A | | | 41 | | | | 3000 / Fan–Fold |
| 1N4739ATR | | | | | | | 3000 / Tape and Reel |
| 1N4740A | | | | | | | 3000 / Bulk Bag |
| 1N4740A–T50A | | | 42 | | | | 3000 / Fan–Fold |
| 1N4740ATR | | | | | | | 3000 / Tape and Reel |
| 1N4741A | | | | | | | 3000 / Bulk Bag |
| 1N4741A–T50A | | | 42 | | | | 3000 / Fan–Fold |
| 1N4741ATR | | | | | | | 3000 / Tape and Reel |
| 1N4742A | | | | | | | 3000 / Bulk Bag |
| 1N4742A–T50A | | | 42 | | | | 3000 / Fan–Fold |
| 1N4742ATR | | | | | | | 3000 / Tape and Reel |

1N4728A – 1N4758A

TOP MARKING AND ORDERING INFORMATION (continued)

| Device | Top Marking | | | | | Package | Shipping† | | | | | | | | | | | | | | | | |
|--------------|----------------------|--------|----------------------|----------------------|--------|---|----------------------|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|----|----------------------|----|----------------------|----|----------------------|----|----------------------|----|-----------------|
| | Line 1 | Line 2 | Line 3 | Line 4 | Line 5 | | | | | | | | | | | | | | | | | | |
| 1N4743A | LOGO | 47 | 43 | A | XY | Axial Lead (Pb – Free / Halide Free) | 3000 / Bulk Bag | | | | | | | | | | | | | | | | |
| 1N4743A–T50A | | | | | | | 3000 / Fan–Fold | | | | | | | | | | | | | | | | |
| 1N4743ATR | | | | | | | 3000 / Tape and Reel | | | | | | | | | | | | | | | | |
| 1N4744A | | | 44 | | | | A | XY | 3000 / Bulk Bag | | | | | | | | | | | | | | |
| 1N4744A–T50A | | | | | | | | | 3000 / Fan–Fold | | | | | | | | | | | | | | |
| 1N4744A–T50R | | | | | | | | | 3000 / Tape and Reel | | | | | | | | | | | | | | |
| 1N4744ATR | | | 3000 / Tape and Reel | | | | | | | | | | | | | | | | | | | | |
| 1N4745A | | | 45 | | | | | | A | XY | 3000 / Bulk Bag | | | | | | | | | | | | |
| 1N4745A–T50A | | | | | | | | | | | 3000 / Fan–Fold | | | | | | | | | | | | |
| 1N4745ATR | | | | | | | | | | | 3000 / Tape and Reel | | | | | | | | | | | | |
| 1N4746A | | | 46 | | | | | | | | A | XY | 3000 / Bulk Bag | | | | | | | | | | |
| 1N4746A–T50A | | | | | | | | | | | | | 3000 / Fan–Fold | | | | | | | | | | |
| 1N4746ATR | | | | | | | | | | | | | 3000 / Tape and Reel | | | | | | | | | | |
| 1N4747A | | | 47 | | | | | | | | | | A | XY | 3000 / Bulk Bag | | | | | | | | |
| 1N4747A–T50A | | | | | | | | | | | | | | | 3000 / Fan–Fold | | | | | | | | |
| 1N4747ATR | | | | | | | | | | | | | | | 3000 / Tape and Reel | | | | | | | | |
| 1N4748A | | | 48 | | | | | | | | | | | | A | XY | 3000 / Bulk Bag | | | | | | |
| 1N4748A–T50A | | | | | | | | | | | | | | | | | 3000 / Fan–Fold | | | | | | |
| 1N4748ATR | | | | | | | | | | | | | | | | | 3000 / Tape and Reel | | | | | | |
| 1N4749A | | | 49 | | | | | | | | | | | | | | A | XY | 3000 / Bulk Bag | | | | |
| 1N4749A–T50A | | | | | | | | | | | | | | | | | | | 3000 / Fan–Fold | | | | |
| 1N4749A–T50R | | | | | | | | | | | | | | | | | | | 3000 / Tape and Reel | | | | |
| 1N4749ATR | | | | | | | | | | | | | | | | | | | 3000 / Tape and Reel | | | | |
| 1N4750A | | | 50 | | | | | | | | | | | | | | | | A | XY | 3000 / Bulk Bag | | |
| 1N4750A–T50A | | | | | | | | | | | | | | | | | | | | | 3000 / Fan–Fold | | |
| 1N4750ATR | | | | | | | | | | | | | | | | | | | | | 3000 / Tape and Reel | | |
| 1N4751A | | | 51 | | | | | | | | | | | | | | | | | | A | XY | 3000 / Bulk Bag |
| 1N4751A–T50A | | | | | | | | | | | | | | | | | | | | | | | 3000 / Fan–Fold |
| 1N4751ATR | 3000 / Tape and Reel | | | | | | | | | | | | | | | | | | | | | | |
| 1N4752A | 52 | A | XY | 3000 / Bulk Bag | | | | | | | | | | | | | | | | | | | |
| 1N4752A–T50A | | | | 3000 / Fan–Fold | | | | | | | | | | | | | | | | | | | |
| 1N4752ATR | | | | 3000 / Tape and Reel | | | | | | | | | | | | | | | | | | | |
| 1N4753A | 53 | | | A | XY | 3000 / Bulk Bag | | | | | | | | | | | | | | | | | |
| 1N4753A–T50A | | | | | | 3000 / Fan–Fold | | | | | | | | | | | | | | | | | |
| 1N4754A | 54 | | | | | A | XY | 3000 / Bulk Bag | | | | | | | | | | | | | | | |
| 1N4754A–T50A | | | | | | | | 3000 / Fan–Fold | | | | | | | | | | | | | | | |
| 1N4755A | 55 | | | | | | | A | XY | 3000 / Bulk Bag | | | | | | | | | | | | | |
| 1N4755A–T50A | | | | | | | | | | 3000 / Fan–Fold | | | | | | | | | | | | | |
| 1N4756A | 56 | | | | | | | | | A | XY | 3000 / Bulk Bag | | | | | | | | | | | |
| 1N4757A | | | | | | | | | | | | 3000 / Bulk Bag | | | | | | | | | | | |

1N4728A – 1N4758A

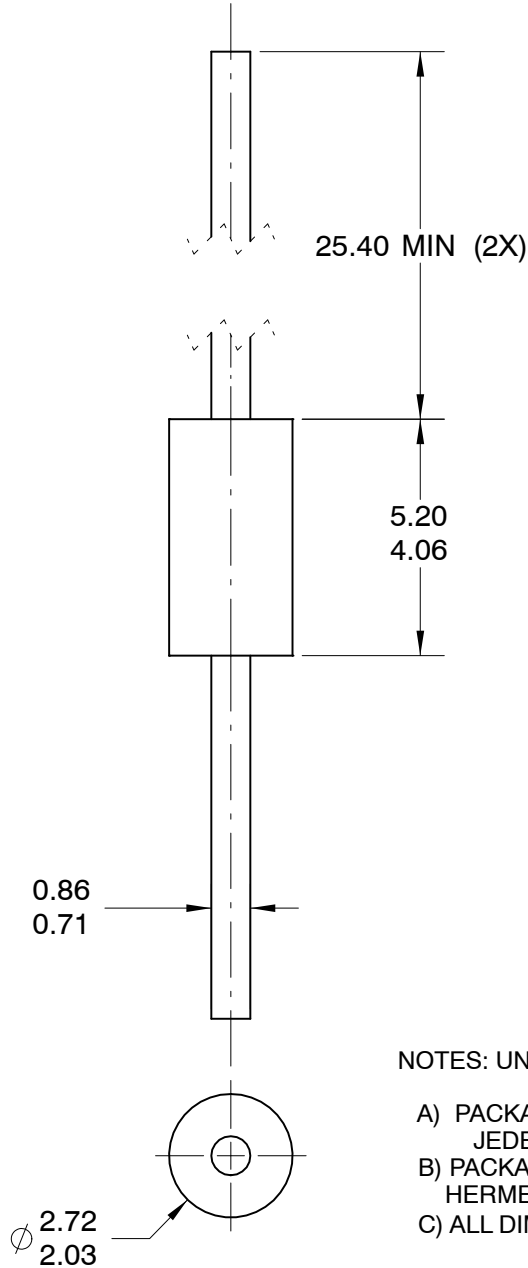
TOP MARKING AND ORDERING INFORMATION (continued)

| Device | Top Marking | | | | | Package | Shipping† |
|--------------|-------------|--------|--------|--------|--------|---|-----------------|
| | Line 1 | Line 2 | Line 3 | Line 4 | Line 5 | | |
| 1N4758A | LOGO | 47 | 58 | A | XY | Axial Lead (Pb – Free / Halide Free) | 3000 / Bulk Bag |
| 1N4758A–T50A | | | | | | | 3000 / Fan–Fold |

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

AXIAL LEAD / DO-41
CASE 017AH
ISSUE O


DATE 31 AUG 2016



NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE STANDARD REFERENCE: JEDEC DO-204 VARIATION AL.
- B) PACKAGE BODY CAN BE PLASTIC OR HERMETICALLY SEALED GLASS.
- C) ALL DIMENSIONS ARE IN MILLIMETERS.

| | | |
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