
1N4728A through 1N4753A

Silicon Epitaxial Planar Zener Diodes
for Stabilized Power Supply

HITACHI

ADE-208-136A (Z)
Rev. 1

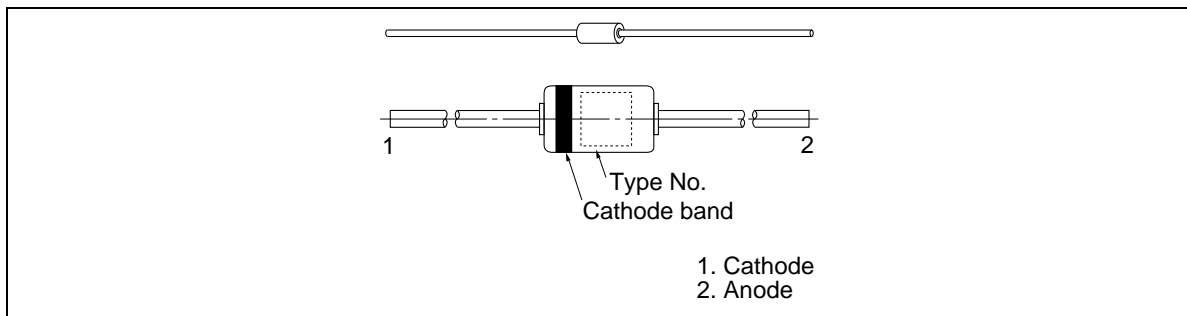
Features

- Glass package DO-41 structure ensures high reliability.
- Wide spectrum from 3.3V through 36V of zener voltage provide flexible application.

Ordering Information

| Type No. | Mark | Package Code |
|-------------------------|----------|--------------|
| 1N4728A through 1N4753A | Type No. | DO-41 |

Outline



1N4728A through 1N4753A

Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Value | Unit |
|----------------------|-----------------|-------------|------|
| Power dissipation | Pd ¹ | 1.0 | W |
| Junction temperature | Tj | 200 | °C |
| Storage temperature | Tstg | -65 to +200 | °C |

Note 1. See Fig.3

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Electrical Characteristics (Ta = 25°C)

| | V_z (V)* ¹ | | I_r (μA) | | Z_{zT} (Ω) | | Z_{zK} (Ω) | | I_{RSM} (mA)* ² |
|---------|-------------------------|----------------|------------|----------------|--------------|----------------|--------------|----------------|------------------------------|
| | Max | Test Condition | Max | Test Condition | Max | Test Condition | Max | Test Condition | Max |
| | | I_z (mA) | | V_R (V) | | I_{zT} (mA) | | I_{zK} (mA) | |
| 1N4728A | 3.3 ± 5 (%) | 76 | 100 | 1.0 | 10 | 76 | 400 | 1.0 | 1380 |
| 1N4729A | 3.6 ± 5 (%) | 69 | 100 | 1.0 | 10 | 69 | 400 | 1.0 | 1260 |
| 1N4730A | 3.9 ± 5 (%) | 64 | 50 | 1.0 | 9 | 64 | 400 | 1.0 | 1190 |
| 1N4731A | 4.3 ± 5 (%) | 58 | 10 | 1.0 | 9 | 58 | 400 | 1.0 | 1070 |
| 1N4732A | 4.7 ± 5 (%) | 53 | 10 | 1.0 | 8 | 53 | 500 | 1.0 | 970 |
| 1N4733A | 5.1 ± 5 (%) | 49 | 10 | 1.0 | 7 | 49 | 550 | 1.0 | 890 |
| 1N4734A | 5.6 ± 5 (%) | 45 | 10 | 2.0 | 5 | 45 | 600 | 1.0 | 810 |
| 1N4735A | 6.2 ± 5 (%) | 41 | 10 | 3.0 | 2 | 41 | 700 | 1.0 | 730 |
| 1N4736A | 6.8 ± 5 (%) | 37 | 10 | 4.0 | 3.5 | 37 | 700 | 1.0 | 660 |
| 1N4737A | 7.5 ± 5 (%) | 34 | 10 | 5.0 | 4 | 34 | 700 | 0.5 | 605 |
| 1N4738A | 8.2 ± 5 (%) | 31 | 10 | 6.0 | 4.5 | 31 | 700 | 0.5 | 550 |
| 1N4739A | 9.1 ± 5 (%) | 28 | 10 | 7.0 | 5 | 28 | 700 | 0.5 | 500 |
| 1N4740A | 10 ± 5 (%) | 25 | 10 | 7.6 | 7 | 25 | 700 | 0.25 | 454 |
| 1N4741A | 11 ± 5 (%) | 23 | 5 | 8.4 | 8 | 23 | 700 | 0.25 | 414 |
| 1N4742A | 12 ± 5 (%) | 21 | 5 | 9.1 | 9 | 21 | 700 | 0.25 | 380 |
| 1N4743A | 13 ± 5 (%) | 19 | 5 | 9.9 | 10 | 19 | 700 | 0.25 | 344 |
| 1N4744A | 15 ± 5 (%) | 17 | 5 | 11.4 | 14 | 17 | 700 | 0.25 | 304 |
| 1N4745A | 16 ± 5 (%) | 15.5 | 5 | 12.2 | 16 | 15.5 | 700 | 0.25 | 285 |
| 1N4746A | 18 ± 5 (%) | 14.0 | 5 | 13.7 | 20 | 14.0 | 750 | 0.25 | 250 |
| 1N4747A | 20 ± 5 (%) | 12.5 | 5 | 15.2 | 22 | 12.5 | 750 | 0.25 | 225 |
| 1N4748A | 22 ± 5 (%) | 11.5 | 5 | 16.7 | 23 | 11.5 | 750 | 0.25 | 205 |
| 1N4749A | 24 ± 5 (%) | 10.5 | 5 | 18.2 | 25 | 10.5 | 750 | 0.25 | 190 |
| 1N4750A | 27 ± 5 (%) | 9.5 | 5 | 20.6 | 35 | 9.5 | 750 | 0.25 | 170 |
| 1N4751A | 30 ± 5 (%) | 8.5 | 5 | 22.8 | 40 | 8.5 | 1000 | 0.25 | 150 |
| 1N4752A | 33 ± 5 (%) | 7.5 | 5 | 25.1 | 45 | 7.5 | 1000 | 0.25 | 135 |
| 1N4753A | 36 ± 5 (%) | 7.0 | 5 | 27.4 | 50 | 7.0 | 1000 | 0.25 | 125 |

Note 1. Tested with DC

Note 2. t=1/120 sec reverse direction 1pulse

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Main Characteristic

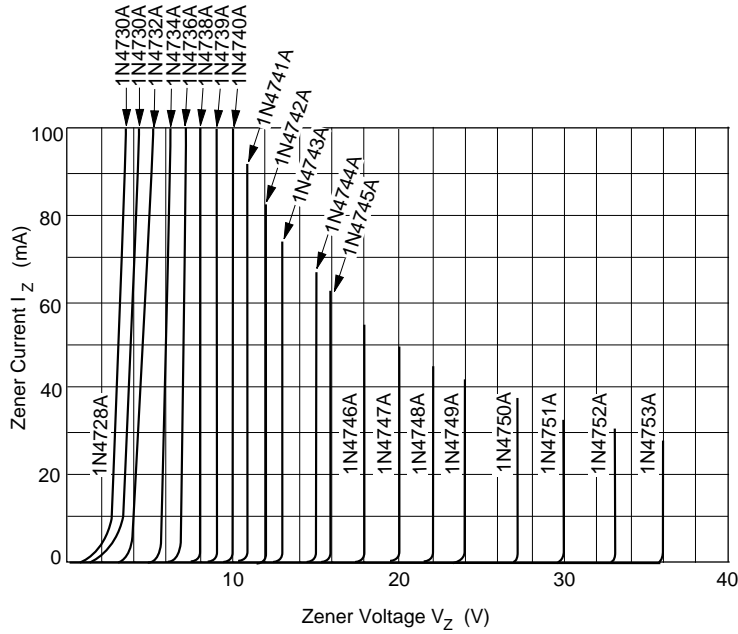


Fig.1 Zener current Vs. Zener voltage

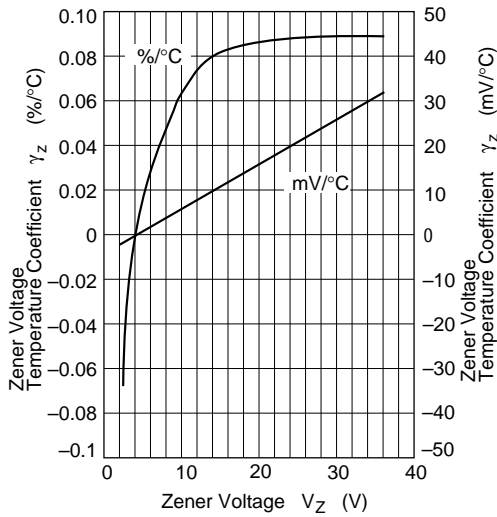


Fig.2 Temperature Coefficient Vs. Zener voltage

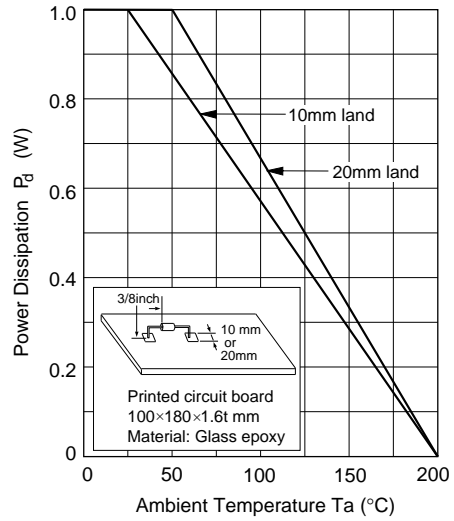


Fig.3 Power Dissipation Vs. Ambient Temperature

Main Characteristic

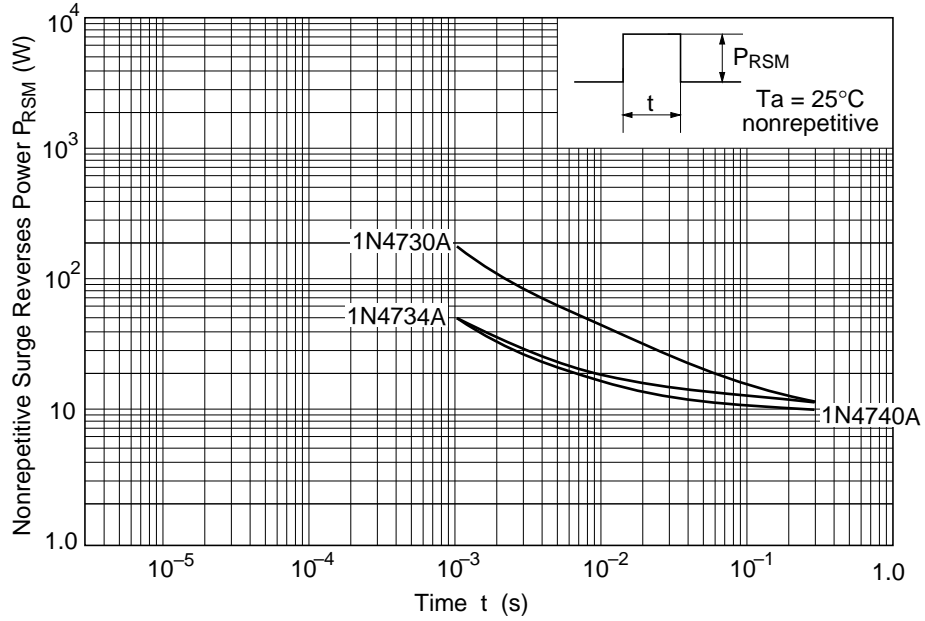


Fig.4 Surge Reverse Power Ratings

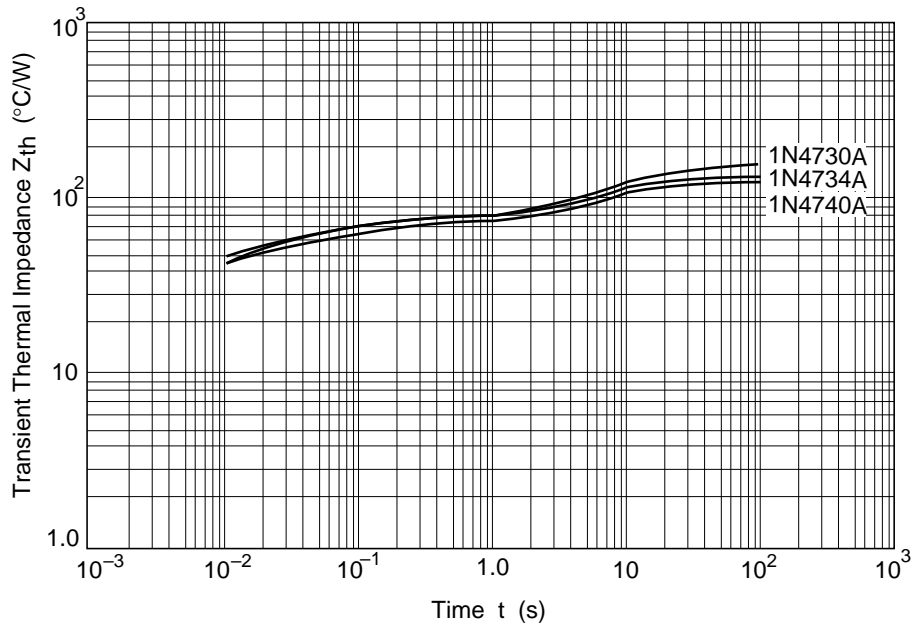


Fig.5 Transient Thermal Impedance