

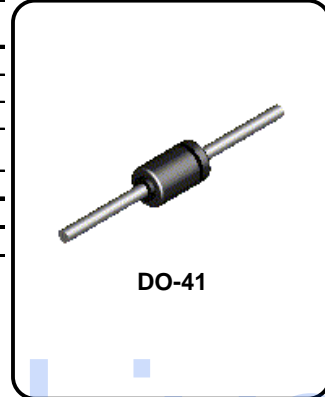
1N4728A - 1N4752A Series One Watt Zeners

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Tolerance: A = 5%

| Parameter | Value | Units |
|---|-------------|---------|
| Storage Temperature Range | -65 to +200 | °C |
| Maximum Junction Operating Temperature | + 200 | °C |
| Lead Temperature (1/16" from case for 10 seconds) | + 230 | °C |
| Total Device Dissipation | 1.0 | W |
| Derate above 50°C | 6.67 | mW / °C |
| Thermal resistance Junction to Lead | 53.5 | °C/W |
| Thermal resistance Junction to Ambient | 100 | °C/W |
| Surge Power** | 10 | W |



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

**Non-recurrent square wave PW= 8.3 ms, TA= 55 degrees C.

NOTES:

1) These ratings are based on a maximum junction temperature of 200 degrees C.

2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Electrical Characteristics

TA = 25°C unless otherwise noted

| Device | V _Z (V) | Z _Z (Ω) | @ I _{ZT} (mA) | Z _{ZK} (Ω) | @ I _{ZK} (mA) | V _R (V) | @ I _R (μA) | I _{SURGE} (mA) | I _{ZM} (mA) |
|---------|-----------------------|-----------------------|------------------------------|------------------------|------------------------------|-----------------------|-----------------------------|----------------------------|-------------------------|
| 1N4728A | 3.3 | 10 | 76 | 400 | 1.0 | 1.0 | 100 | 1,380 | 276 |
| 1N4729A | 3.6 | 10 | 69 | 400 | 1.0 | 1.0 | 100 | 1,260 | 252 |
| 1N4730A | 3.9 | 9.0 | 64 | 400 | 1.0 | 1.0 | 50 | 1,190 | 234 |
| 1N4731A | 4.3 | 9.0 | 58 | 400 | 1.0 | 1.0 | 10 | 1,070 | 217 |
| 1N4732A | 4.7 | 8.0 | 53 | 500 | 1.0 | 1.0 | 10 | 970 | 193 |
| 1N4733A | 5.1 | 7.0 | 49 | 550 | 1.0 | 1.0 | 10 | 890 | 178 |
| 1N4734A | 5.6 | 5.0 | 45 | 600 | 1.0 | 2.0 | 10 | 810 | 162 |
| 1N4735A | 6.2 | 2.0 | 41 | 700 | 1.0 | 3.0 | 10 | 730 | 146 |
| 1N4736A | 6.8 | 3.5 | 37 | 700 | 1.0 | 4.0 | 10 | 660 | 133 |
| 1N4737A | 7.5 | 4.0 | 34 | 700 | 0.5 | 5.0 | 10 | 605 | 121 |
| 1N4738A | 8.2 | 4.5 | 31 | 700 | 0.5 | 6.0 | 10 | 550 | 110 |
| 1N4739A | 9.1 | 5.0 | 28 | 700 | 0.5 | 7.0 | 10 | 500 | 100 |
| 1N4740A | 10 | 7.0 | 25 | 700 | 0.25 | 7.6 | 10 | 454 | 91 |
| 1N4741A | 11 | 8.0 | 23 | 700 | 0.25 | 8.4 | 5.0 | 414 | 83 |
| 1N4742A | 12 | 9.0 | 21 | 700 | 0.25 | 9.1 | 5.0 | 380 | 76 |
| 1N4743A | 13 | 10 | 19 | 700 | 0.25 | 9.9 | 5.0 | 344 | 69 |
| 1N4744A | 15 | 14 | 17 | 700 | 0.25 | 11.4 | 5.0 | 304 | 61 |
| 1N4745A | 16 | 16 | 15.5 | 700 | 0.25 | 12.2 | 5.0 | 285 | 57 |
| 1N4746A | 18 | 20 | 14 | 750 | 0.25 | 13.7 | 5.0 | 250 | 50 |
| 1N4747A | 20 | 22 | 12.5 | 750 | 0.25 | 15.2 | 5.0 | 225 | 45 |
| 1N4748A | 22 | 23 | 11.5 | 750 | 0.25 | 16.7 | 5.0 | 205 | 41 |
| 1N4749A | 24 | 25 | 10.5 | 750 | 0.25 | 18.2 | 5.0 | 190 | 38 |
| 1N4750A | 27 | 35 | 9.5 | 750 | 0.25 | 20.6 | 5.0 | 170 | 34 |
| 1N4751A | 30 | 40 | 8.5 | 1,000 | 0.25 | 22.8 | 5.0 | 150 | 30 |
| 1N4752A | 33 | 45 | 7.5 | 1,000 | 0.25 | 25.1 | 5.0 | 135 | 27 |

V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all 1N4700 series

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