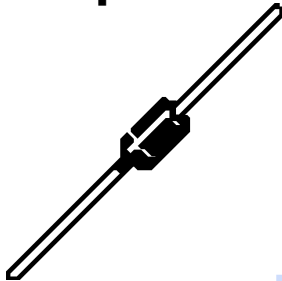


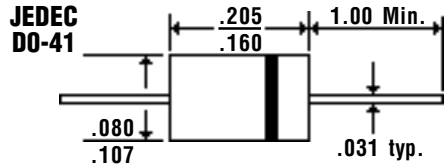
1 Watt ZENER DIODES (3.3V to 100V)

1N4728...4764 Series

Description



Mechanical Dimensions



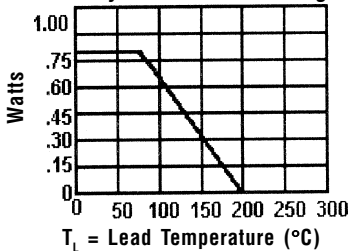
Features

■ 5 & 10% VOLTAGE TOLERANCES AVAILABLE

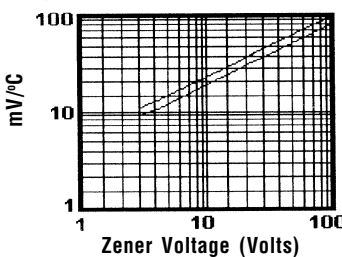
■ WIDE VOLTAGE RANGE
■ MEETS UL SPECIFICATION 94V-0

| Maximum Ratings | 1N4728...4764 Series | Units |
|--|----------------------|---------|
| DC Power Dissipation with $T_L = > = 75^\circ\text{C}$... P_D | 1 | Watt |
| Lead Length = .375 Inches Derate Above 50 °C | 6.67 | mW / °C |
| Operating & Storage Temperature Range... T_J , T_{STRG} | -65 to 100 | °C |

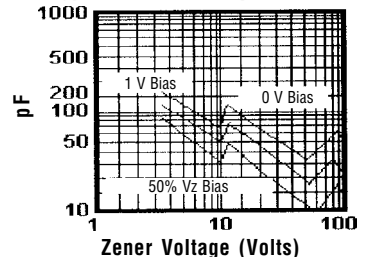
Steady State Power Derating



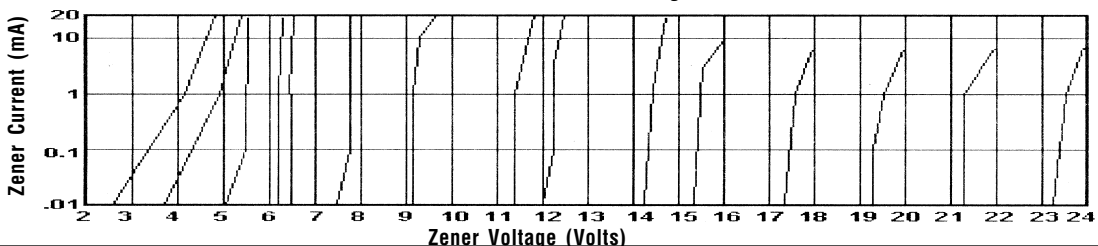
Temperature Coefficients vs. Voltage



Typical Junction Capacitance



Zener Current vs. Zener Voltage



1 Watt ZENER DIODES (3.3V to 100V)

1N4728...4764 Series

- NOTES:** 1. For 10% Tolerance on Zener Voltage, Specify No Suffix. For 5% Tolerance, Specify Suffix "A". (Example: 1N4728A = 3.3V +/- 5%)
 2. $T_A = 25^\circ\text{C}$ unless otherwise specified. Measurements made at Thermal Equilibrium.

Lead Length = .375". Thermal Resistance of Heat Sink = 30°C/W , $V_f = 1.1\text{V Max.}$ @ $I_f = 200\text{mA}$.

Electrical Characteristics @ 25°C.

| Part # Jedec Type # | Nominal Zener Voltage | Test Current Izt Max | MAX. ZENER IMPEDANCE | | | MAX. REVERSE LEAKAGE CURRENT | | MAX SURGE CURRENT |
|------------------------|--------------------------|-------------------------|----------------------|-------------------|-----------|---------------------------------|-------|--------------------------|
| | | | Zzt @ Izt Ohms | Zzk @ Izk Ohms | Izk mA | I_R (μA) | V_R | $T_A = 25^\circ\text{C}$ |
| 1N4728 | 3.3 | 76 | 10 | 400 | 1 | 100 | 1 | 1380 |
| 1N4729 | 3.6 | 69 | 10 | 400 | 1 | 100 | 1 | 1260 |
| 1N4730 | 3.9 | 64 | 9 | 400 | 1 | 50 | 1 | 1190 |
| 1N4731 | 4.3 | 58 | 9 | 400 | 1 | 10 | 1 | 1070 |
| 1N4732 | 4.7 | 53 | 8 | 500 | 1 | 10 | 1 | 970 |
| 1N4733 | 5.1 | 49 | 7 | 550 | 1 | 10 | 1 | 890 |
| 1N4734 | 5.6 | 45 | 5 | 600 | 1 | 10 | 2 | 810 |
| 1N4735 | 6.2 | 41 | 2 | 700 | 1 | 10 | 3 | 730 |
| 1N4736 | 7.5 | 37 | 3.5 | 700 | 1 | 10 | 4 | 660 |
| 1N4737 | 8.2 | 34 | 4 | 700 | 0.5 | 10 | 5 | 605 |
| 1N4738 | 6.0 | 31 | 4.5 | 700 | 0.5 | 10 | 6 | 550 |
| 1N4739 | 9.1 | 28 | 5 | 700 | 0.5 | 10 | 7 | 500 |
| 1N4740 | 10 | 25 | 7 | 700 | 0.25 | 10 | 7.6 | 454 |
| 1N4741 | 11 | 23 | 8 | 700 | 0.25 | 5 | 8.4 | 414 |
| 1N4742 | 12 | 21 | 9 | 700 | 0.25 | 5 | 9.1 | 380 |
| 1N4743 | 13 | 19 | 10 | 700 | 0.25 | 5 | 9.9 | 344 |
| 1N4744 | 15 | 17 | 14 | 700 | 0.25 | 5 | 11.4 | 304 |
| 1N4745 | 16 | 15.5 | 16 | 700 | 0.25 | 5 | 12.2 | 285 |
| 1N4746 | 18 | 14 | 20 | 750 | 0.25 | 5 | 13.7 | 250 |
| 1N4747 | 20 | 12.5 | 22 | 750 | 0.25 | 5 | 15.2 | 225 |
| 1N4748 | 22 | 11.5 | 23 | 750 | 0.25 | 5 | 16.7 | 205 |
| 1N4749 | 24 | 10.5 | 25 | 750 | 0.25 | 5 | 18.2 | 190 |
| 1N4750 | 27 | 9.5 | 35 | 750 | 0.25 | 5 | 20.6 | 170 |
| 1N4751 | 30 | 8.5 | 40 | 1000 | 0.25 | 5 | 22.8 | 150 |
| 1N4752 | 33 | 7.5 | 45 | 1000 | 0.25 | 5 | 25.1 | 135 |
| 1N4753 | 36 | 7.0 | 50 | 1500 | 0.25 | 5 | 27.4 | 125 |
| 1N4754 | 39 | 6.5 | 60 | 1500 | 0.25 | 5 | 29.7 | 115 |
| 1N4755 | 43 | 6.0 | 70 | 1500 | 0.25 | 5 | 32.7 | 110 |
| 1N4756 | 47 | 5.5 | 80 | 1500 | 0.25 | 5 | 35.8 | 95 |
| 1N4757 | 51 | 5.0 | 95 | 1500 | 0.25 | 5 | 38.8 | 90 |
| 1N4758 | 56 | 4.5 | 110 | 2000 | 0.25 | 5 | 42.6 | 80 |
| 1N4759 | 62 | 4.0 | 125 | 2000 | 0.25 | 5 | 47.1 | 70 |
| 1N4760 | 68 | 3.7 | 150 | 2000 | 0.25 | 5 | 51.7 | 65 |
| 1N4761 | 75 | 3.3 | 175 | 2000 | 0.25 | 5 | 56 | 60 |
| 1N4762 | 82 | 3.0 | 200 | 3000 | 0.25 | 5 | 62.2 | 55 |
| 1N4763 | 91 | 2.8 | 250 | 3000 | 0.25 | 5 | 69.2 | 50 |
| 1N4764 | 100 | 2.5 | 350 | 3000 | 0.25 | 5 | 76 | 45 |