



# 1N4728A~1N4761A

## Zener diode

Voltage Range  
3.3 to 75 Volts

### Features

- 1.High reliability
- 2.Very sharp reverse characteristic
- 3.Low reverse current level
4. $V_z$ -tolerance $\pm$ 5%

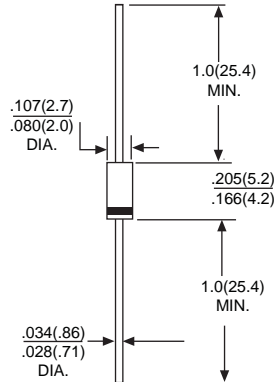
### Applications

Voltage stabilization

### Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

### DO-41



Dimensions in inches and (millimeters)

| Parameter                 | Test Conditions                | Type | Symbol    | Value     | Unit               |
|---------------------------|--------------------------------|------|-----------|-----------|--------------------|
| Power dissipation         | $T_{amb} * 50^{\circ}\text{C}$ |      | $P_D$     | 1         | W                  |
| Z-current                 |                                |      | $I_z$     | $P_D/V_z$ | mA                 |
| Junction temperature      |                                |      | $T_j$     | 200       | $^{\circ}\text{C}$ |
| Storage temperature range |                                |      | $T_{stg}$ | -65~+175  | $^{\circ}\text{C}$ |

### Maximum Thermal Resistance

$T_j=25^{\circ}\text{C}$

| Parameter        | Test Conditions                              | Symbol     | Value | Unit |
|------------------|--|------------|-------|------|
| Junction ambient | $l=9.5\text{mm}(3/8")$ $T_L=\text{constant}$ | $R_{thJA}$ | 100   | K/W  |

### Electrcal Characteristics

$T_j=25^{\circ}\text{C}$

| Parameter       | Test Conditions    | Type | Symbol | Min | Typ | Max | Unit |
|-----------------|--------------------|------|--------|-----|-----|-----|------|
| Forward voltage | $I_F=200\text{mA}$ |      | $V_F$  |     |     | 1.2 | V    |



| Type    | Vznom | Izt for Vz and r |      | Rzk at | Izk  | IR at VR |      |
|---------|-------|------------------|------|--------|------|----------|------|
|         | V     | mA               | *    | *      | mA   | uA       | V    |
| 1N4728A | 3.3   | 76               | <10  | <400   | 1    | <100     | 1    |
| 1N4729A | 3.6   | 69               | <10  | <400   | 1    | <100     | 1    |
| 1N4730A | 3.9   | 64               | <9   | <400   | 1    | <50      | 1    |
| 1N4731A | 4.3   | 58               | <9   | <400   | 1    | <10      | 1    |
| 1N4732A | 4.7   | 53               | <8   | <500   | 1    | <10      | 1    |
| 1N4733A | 5.1   | 49               | <7   | <550   | 1    | <10      | 1    |
| 1N4734A | 5.6   | 45               | <5   | <600   | 1    | <10      | 2    |
| 1N4735A | 6.2   | 41               | <2   | <700   | 1    | <10      | 3    |
| 1N4736A | 6.8   | 37               | <3.5 | <700   | 1    | <10      | 4    |
| 1N4737A | 7.5   | 34               | <4.0 | <700   | 0.5  | <10      | 5    |
| 1N4738A | 8.2   | 31               | <4.5 | <700   | 0.5  | <10      | 6    |
| 1N4739A | 9.1   | 28               | <5.0 | <700   | 0.5  | <10      | 7    |
| 1N4740A | 10    | 25               | <7   | <700   | 0.25 | <10      | 7.6  |
| 1N4741A | 11    | 23               | <8   | <700   | 0.25 | <5       | 8.4  |
| 1N4742A | 12    | 21               | <9   | <700   | 0.25 | <5       | 9.1  |
| 1N4743A | 13    | 19               | <10  | <700   | 0.25 | <5       | 9.9  |
| 1N4744A | 15    | 17               | <14  | <700   | 0.25 | <5       | 11.4 |
| 1N4745A | 16    | 15.5             | <16  | <700   | 0.25 | <5       | 12.2 |
| 1N4746A | 18    | 14               | <20  | <750   | 0.25 | <5       | 13.7 |
| 1N4747A | 20    | 12.5             | <22  | <750   | 0.25 | <5       | 15.2 |
| 1N4748A | 22    | 11.5             | <23  | <750   | 0.25 | <5       | 16.7 |
| 1N4749A | 24    | 10.5             | <25  | <750   | 0.25 | <5       | 18.2 |
| 1N4750A | 27    | 9.5              | <35  | <750   | 0.25 | <5       | 20.6 |
| 1N4751A | 30    | 8.5              | <40  | <1000  | 0.25 | <5       | 22.8 |
| 1N4752A | 33    | 7.5              | <45  | <1000  | 0.25 | <5       | 25.1 |
| 1N4753A | 36    | 7.0              | <50  | <1000  | 0.25 | <5       | 27.4 |
| 1N4754A | 39    | 6.5              | <60  | <1000  | 0.25 | <5       | 29.7 |
| 1N4755A | 43    | 6.0              | <70  | <1500  | 0.25 | <5       | 32.7 |
| 1N4756A | 47    | 5.5              | <80  | <1500  | 0.25 | <5       | 35.8 |
| 1N4757A | 51    | 5.0              | <95  | <1500  | 0.25 | <5       | 38.8 |
| 1N4758A | 56    | 4.5              | <110 | <2000  | 0.25 | <5       | 42.6 |
| 1N4759A | 62    | 4.0              | <125 | <2000  | 0.25 | <5       | 47.1 |
| 1N4760A | 68    | 3.7              | <150 | <2000  | 0.25 | <5       | 51.7 |
| 1N4761A | 75    | 3.3              | <175 | <2000  | 0.25 | <5       | 56   |

1)Based on DC-measurement at thermal equilibrium while maintaining the temperature (T<sub>L</sub>)at 30°C, 9.5mm(3/8") from the diode body.