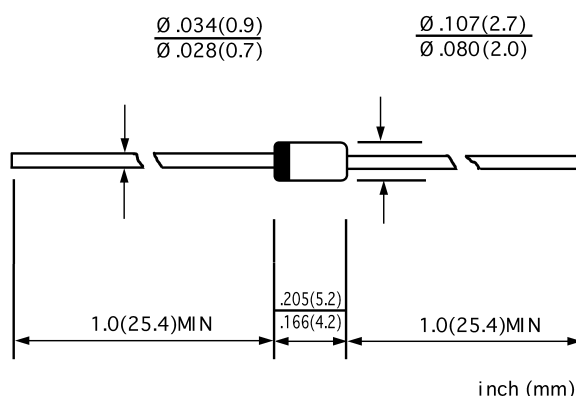


**ZENER DIODES**
**POWER DISSIPATION: 1.0 W**
**FEATURES**

- ◇ Silicon planar power zener diodes
- ◇ For use in stabilizing and clipping circuits with high power rating.
- ◇ Standard zener voltage tolerance is  $\pm 10\%$ . Add suffix "A" for  $\pm 5\%$  tolerance. other zener voltage and tolerances are available upon request.

**MECHANICAL DATA**

- ◇ Case: DO-41, glass case
- ◇ Terminals: solderable per MIL-STD-202, method 208
- ◇ Polarity: cathode band
- ◇ Marking: type number
- ◇ Approx. weight: 0.35 grams.

**DO-41(GLASS)**

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

|                                                                         | SYMBOL     | VALUE             | UNIT |
|-------------------------------------------------------------------------|------------|-------------------|------|
| Zener current (see Table "Characteristics")                             |            |                   |      |
| Power dissipation @ $T_{amb} \leq 50^{\circ}\text{C}$                   | $P_{Diss}$ | 1.0 <sup>1)</sup> | W    |
| Z-current                                                               | $I_Z$      | $P_V/V_Z$         | mA   |
| Junction temperature                                                    | $T_J$      | 200               | °C   |
| Storage temperature range                                               | $T_s$      | -55---+200        | °C   |
| Junction ambient $l=9.5\text{mm}(3/8\text{ "})$ , $T_L=\text{constant}$ | $R_{ThJA}$ | 100               | K/W  |

|                                       | SYMBOL | MIN | TYP | MAX | UNIT |
|---------------------------------------|--------|-----|-----|-----|------|
| Forward voltage at $I_F=200\text{mA}$ | $V_F$  | —   | —   | 1.2 | V    |

# ELECTRICAL CHARACTERISTICS (TA=25°C)

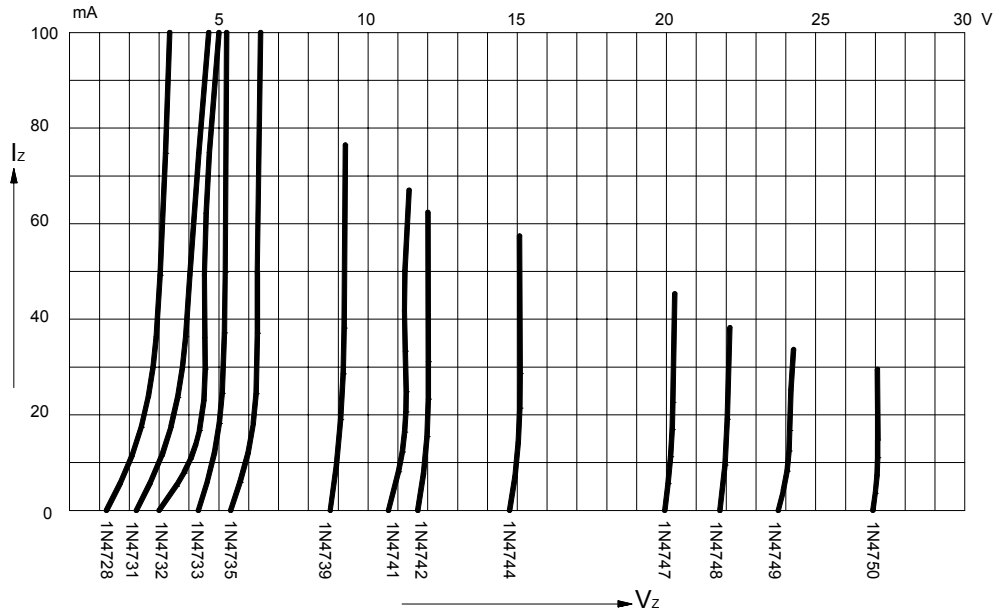
| Type   | Nominal zener voltage 1)        | Test current    | Maximum dynamic impedance        |                                  |                 | Maximum reverse leakage current |                 | Max surge current 8.3ms                | Maximum regulator current 2)            |
|--------|---------------------------------|-----------------|----------------------------------|----------------------------------|-----------------|---------------------------------|-----------------|----------------------------------------|-----------------------------------------|
|        | V <sub>Z</sub> @I <sub>ZT</sub> | I <sub>ZT</sub> | I <sub>ZT</sub> @Z <sub>ZT</sub> | Z <sub>ZK</sub> @I <sub>ZK</sub> | I <sub>ZK</sub> | I <sub>R</sub>                  | @V <sub>R</sub> | I <sub>R</sub> @T <sub>amb</sub> =25°C | I <sub>ZM</sub> @T <sub>amb</sub> =50°C |
|        | (V)                             | (mA)            | (Ω)                              | (Ω)                              | (mA)            | (μA)                            | (V)             | (mA)                                   | (mA)                                    |
| 1N4728 | 3.3                             | 76              | 10                               | 400                              | 1.0             | 100                             | 1               | 1380                                   | 276                                     |
| 1N4729 | 3.6                             | 69              | 10                               | 400                              | 1.0             | 100                             | 1               | 1260                                   | 252                                     |
| 1N4730 | 3.9                             | 64              | 9                                | 400                              | 1.0             | 50                              | 1               | 1190                                   | 234                                     |
| 1N4731 | 4.3                             | 58              | 9                                | 400                              | 1.0             | 10                              | 1               | 1070                                   | 217                                     |
| 1N4732 | 4.7                             | 53              | 8                                | 500                              | 1.0             | 10                              | 1               | 970                                    | 193                                     |
| 1N4733 | 5.1                             | 49              | 7                                | 550                              | 1.0             | 10                              | 1               | 890                                    | 178                                     |
| 1N4734 | 5.6                             | 45              | 5                                | 600                              | 1.0             | 10                              | 2               | 810                                    | 462                                     |
| 1N4735 | 6.2                             | 41              | 2                                | 700                              | 1.0             | 10                              | 3               | 730                                    | 146                                     |
| 1N4736 | 6.8                             | 37              | 3.5                              | 700                              | 1.0             | 10                              | 4               | 660                                    | 133                                     |
| 1N4737 | 7.5                             | 34              | 4.0                              | 700                              | 0.5             | 10                              | 5               | 605                                    | 121                                     |
| 1N4738 | 8.2                             | 31              | 4.5                              | 700                              | 0.5             | 10                              | 6               | 550                                    | 110                                     |
| 1N4739 | 9.1                             | 28              | 5.0                              | 700                              | 0.5             | 10                              | 7               | 500                                    | 100                                     |
| 1N4740 | 10                              | 25              | 7                                | 700                              | 0.25            | 10                              | 7.6             | 454                                    | 91                                      |
| 1N4741 | 11                              | 23              | 8                                | 700                              | 0.25            | 5                               | 8.4             | 414                                    | 83                                      |
| 1N4742 | 12                              | 21              | 9                                | 700                              | 0.25            | 5                               | 9.1             | 380                                    | 76                                      |
| 1N4743 | 13                              | 19              | 10                               | 700                              | 0.25            | 5                               | 9.9             | 344                                    | 69                                      |
| 1N4744 | 15                              | 17              | 14                               | 700                              | 0.25            | 5                               | 11.4            | 304                                    | 61                                      |
| 1N4745 | 16                              | 15.5            | 16                               | 700                              | 0.25            | 5                               | 12.2            | 285                                    | 57                                      |
| 1N4746 | 18                              | 14              | 20                               | 750                              | 0.25            | 5                               | 13.7            | 250                                    | 50                                      |
| 1N4747 | 20                              | 12.5            | 22                               | 750                              | 0.25            | 5                               | 15.2            | 225                                    | 45                                      |
| 1N4748 | 22                              | 11.5            | 23                               | 750                              | 0.25            | 5                               | 16.7            | 205                                    | 41                                      |
| 1N4749 | 24                              | 10.5            | 25                               | 750                              | 0.25            | 5                               | 18.2            | 190                                    | 38                                      |
| 1N4750 | 27                              | 9.5             | 35                               | 750                              | 0.25            | 5                               | 20.6            | 170                                    | 34                                      |
| 1N4751 | 30                              | 8.5             | 40                               | 1000                             | 0.25            | 5                               | 22.8            | 150                                    | 30                                      |
| 1N4752 | 33                              | 7.5             | 45                               | 1000                             | 0.25            | 5                               | 25.1            | 135                                    | 27                                      |
| 1N4753 | 36                              | 7.0             | 50                               | 1000                             | 0.25            | 5                               | 27.4            | 125                                    | 25                                      |
| 1N4754 | 39                              | 6.5             | 60                               | 1000                             | 0.25            | 5                               | 29.7            | 115                                    | 23                                      |
| 1N4755 | 43                              | 6.0             | 70                               | 1500                             | 0.25            | 5                               | 32.7            | 110                                    | 22                                      |
| 1N4756 | 47                              | 5.5             | 80                               | 1500                             | 0.25            | 5                               | 35.8            | 95                                     | 19                                      |
| 1N4757 | 51                              | 5.0             | 95                               | 1500                             | 0.25            | 5                               | 38.8            | 90                                     | 18                                      |
| 1N4758 | 56                              | 4.5             | 110                              | 2000                             | 0.25            | 5                               | 42.6            | 80                                     | 16                                      |
| 1N4759 | 62                              | 4.0             | 125                              | 2000                             | 0.25            | 5                               | 47.1            | 70                                     | 14                                      |
| 1N4760 | 68                              | 3.7             | 150                              | 2000                             | 0.25            | 5                               | 51.7            | 65                                     | 13                                      |
| 1N4761 | 75                              | 3.3             | 175                              | 2000                             | 0.25            | 5                               | 56.0            | 60                                     | 12                                      |
| 1N4762 | 82                              | 3.0             | 200                              | 3000                             | 0.25            | 5                               | 62.2            | 55                                     | 11                                      |
| 1N4763 | 91                              | 2.8             | 250                              | 3000                             | 0.25            | 5                               | 69.2            | 50                                     | 10                                      |
| 1N4764 | 100                             | 2.5             | 350                              | 3000                             | 0.25            | 5                               | 79.0            | 45                                     | 9                                       |

1)Based on dc\_measurement at thermal equilibrium while maintaining the lead temperature (T<sub>L</sub>) at 30°C+1°C, 9.5mm(3/8")from the Diode body .

2)Valid provided that electrodes at a distance of 10 mm from case kept at ambient temperature.

\*)Additional measurement of voltage group 9v 1 to 75 at 95% V<sub>ZMIN</sub> ≤ 35nA at T<sub>J</sub>25°C

**FIG.1 – BREAKDOWN CHARACTERISTICS**



**FIG.2 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE**

