

1N3821 thru 1N3830, 1N3016 thru 1N3051

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)
V_F = 1.5 V max @ I_F = 200 mA for all types

| JEDEC Type No. (Flangeless) (Note 1 & 2) | *Nominal Zener Voltage V _Z @ I _{ZT} Volts (Note 3) | *Test Current I _{ZT} mA (Note 3) | *Max Zener Impedance (Note 4) | | | Max Reverse Current (Note 5) | | | *Max DC Zener Current I _{ZM} mA (Note 6) |
|--|--|---|--|--|--------------------|------------------------------|--------------------|---------------------|---|
| | | | Z _{ZT} @ I _{ZT} Ohms | Z _{ZK} @ I _{ZK} Ohms | I _{ZK} mA | I _R Max (μA) | V _{R1} 5% | V _{R2} 10% | |
| 1N3821 | 3.3 | 76 | 10 | 400 | 1.0 | *100 | *1.0 | 1.0 | 276 |
| 1N3822 | 3.6 | 69 | 10 | 400 | 1.0 | *100 | *1.0 | 1.0 | 252 |
| 1N3823 | 3.9 | 64 | 9.0 | 400 | 1.0 | *50 | *1.0 | 1.0 | 238 |
| 1N3824 | 4.3 | 58 | 9.0 | 400 | 1.0 | *10 | *1.0 | 1.0 | 213 |
| 1N3825 | 4.7 | 53 | 8.0 | 500 | 1.0 | *10 | *1.0 | 1.0 | 194 |
| 1N3826 | 5.1 | 49 | 7.0 | 550 | 1.0 | *10 | *1.0 | 1.0 | 178 |
| 1N3827 | 5.6 | 45 | 5.0 | 600 | 1.0 | *10 | *2.0 | 2.0 | 162 |
| 1N3828 | 6.2 | 41 | 2.0 | 700 | 1.0 | *10 | *3.0 | 3.0 | 146 |
| 1N3829 | 6.8 | 37 | 1.5 | 500 | 1.0 | *10 | *3.0 | 3.0 | 133 |
| 1N3830 | 7.5 | 34 | 1.5 | 250 | 1.0 | *10 | *3.0 | 3.0 | 121 |
| 1N3016 | 6.8 | 37 | 3.5 | 700 | 1.0 | 10 | 5.2 | 4.9 | 140 |
| 1N3017 | 7.5 | 34 | 4.0 | 700 | 0.5 | 10 | 5.7 | 5.4 | 125 |
| 1N3018 | 8.2 | 31 | 4.5 | 700 | 0.5 | 10 | 6.2 | 5.9 | 115 |
| 1N3019 | 9.1 | 28 | 5.0 | 700 | 0.5 | 7.5 | 6.9 | 6.6 | 106 |
| 1N3020 | 10 | 25 | 7.0 | 700 | 0.25 | 5.0 | 7.6 | 7.2 | 96 |
| 1N3021 | 11 | 23 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 8.0 | 86 |
| 1N3022 | 12 | 21 | 9.0 | 700 | 0.25 | 2.0 | 9.1 | 8.6 | 80 |
| 1N3023 | 13 | 19 | 10 | 700 | 0.25 | 1.0 | 9.9 | 9.4 | 74 |
| 1N3024 | 15 | 17 | 14 | 700 | 0.25 | 1.0 | 11.4 | 10.8 | 63 |
| 1N3025 | 16 | 15.5 | 16 | 700 | 0.25 | 1.0 | 12.2 | 11.5 | 60 |
| 1N3026 | 18 | 14 | 20 | 750 | 0.25 | 0.5 | 13.7 | 13.0 | 52 |
| 1N3027 | 20 | 12.5 | 22 | 750 | 0.25 | 0.5 | 15.2 | 14.4 | 47 |
| 1N3028 | 22 | 11.5 | 23 | 750 | 0.25 | 0.5 | 16.7 | 15.8 | 46 |
| 1N3029 | 24 | 10.5 | 25 | 750 | 0.25 | 0.5 | 18.2 | 17.3 | 40 |
| 1N3030 | 27 | 9.5 | 35 | 750 | 0.25 | 0.5 | 20.6 | 19.4 | 34 |
| 1N3031 | 30 | 8.5 | 40 | 1000 | 0.25 | 0.5 | 22.8 | 21.6 | 31 |
| 1N3032 | 33 | 7.5 | 45 | 1000 | 0.25 | 0.5 | 25.1 | 23.8 | 28 |
| 1N3033 | 36 | 7.0 | 50 | 1000 | 0.25 | 0.5 | 27.4 | 25.9 | 26 |
| 1N3034 | 39 | 6.5 | 60 | 1000 | 0.25 | 0.5 | 29.7 | 28.1 | 23 |
| 1N3035 | 43 | 6.0 | 70 | 1500 | 0.25 | 0.5 | 32.7 | 31.0 | 21 |
| 1N3036 | 47 | 5.5 | 80 | 1500 | 0.25 | 0.5 | 35.8 | 33.8 | 19 |
| 1N3037 | 51 | 5.0 | 95 | 1500 | 0.25 | 0.5 | 38.8 | 36.7 | 18 |
| 1N3038 | 56 | 4.5 | 110 | 2000 | 0.25 | 0.5 | 42.6 | 40.3 | 17 |
| 1N3039 | 62 | 4.0 | 125 | 2000 | 0.25 | 0.5 | 47.1 | 44.6 | 15 |
| 1N3040 | 68 | 3.7 | 150 | 2000 | 0.25 | 0.5 | 51.7 | 49.0 | 14 |
| 1N3041 | 75 | 3.3 | 175 | 2000 | 0.25 | 0.5 | 56.0 | 53.0 | 12 |
| 1N3042 | 82 | 3.0 | 200 | 3000 | 0.25 | 0.5 | 62.2 | 59.0 | 11 |
| 1N3043 | 91 | 2.8 | 250 | 3000 | 0.25 | 0.5 | 69.2 | 65.5 | 10 |
| 1N3044 | 100 | 2.5 | 350 | 3000 | 0.25 | 0.5 | 76.0 | 72.0 | 9.0 |
| 1N3045 | 110 | 2.3 | 450 | 4000 | 0.25 | 0.5 | 83.6 | 79.2 | 8.3 |
| 1N3046 | 120 | 2.0 | 550 | 4500 | 0.25 | 0.5 | 91.2 | 86.4 | 8.0 |
| 1N3047 | 130 | 1.9 | 700 | 5000 | 0.25 | 0.5 | 98.8 | 93.6 | 6.9 |
| 1N3048 | 150 | 1.7 | 1000 | 6000 | 0.25 | 0.5 | 116.0 | 108.0 | 5.7 |
| 1N3049 | 160 | 1.6 | 1100 | 6500 | 0.25 | 0.5 | 121.6 | 115.2 | 5.4 |
| 1N3050 | 180 | 1.4 | 1200 | 7000 | 0.25 | 0.5 | 136.8 | 129.6 | 4.9 |
| 1N3051 | 200 | 1.2 | 1500 | 8000 | 0.25 | 0.5 | 152.0 | 144.0 | 4.6 |

* JEDEC Registered Data on 1N3821 thru 1N3830 and 1N3016 thru 1N3051

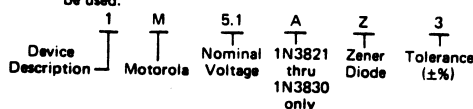
NOTE 1 - TOLERANCE AND TYPE NUMBER DESIGNATION

1N3821 thru 1N3830 - The JEDEC type numbers shown have a standard tolerance for the nominal zener voltage of ±10%. A standard tolerance of ±5% for individual units is also available and is indicated by adding suffix "A" to the standard type number.

1N3016 thru 1N3051 - The JEDEC type numbers shown have a standard tolerance of ±20% for the nominal zener voltage. Suffix "A" for ±10% units or "B" for ±5% units.

NOTE 2 - SPECIALS AVAILABLE INCLUDE:

(A) NOMINAL ZENER VOLTAGES BETWEEN THE VOLTAGES SHOWN AND TIGHTER VOLTAGE TOLERANCES: To designate units with zener voltages other than those assigned JEDEC numbers and/or tight voltage tolerances (±3%, ±2%, ±1%), the Motorola type number should be used.

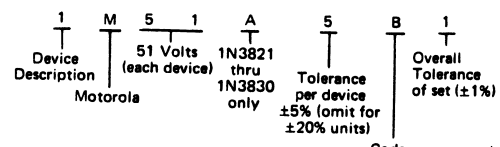


EXAMPLE 1M5.1AZ3

(B) MATCHED SETS: (Standard Tolerances are ±5.0%, ±2.0%, ±1.0%).

Zener diodes are available in sets consisting of two or more matched devices. The method for specifying matched sets is similar to the one described in (A) except that two additional suffixes are added to the code number described.

These devices are marked with code letters to identify the matched sets and, in addition, each unit in a set is marked with the same serial number, which is different for each set ordered.



EXAMPLE 1M51Z5B1

- A - Not used
- B - Two devices in series
- C - Three devices in series
- D - Four devices in series

