

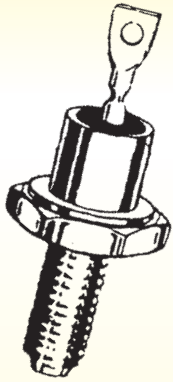


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**1N3305 – 1N3350**  
**1N4549 – 1N4556**

## 50 WATTS ZENER DIODES



### ZENER DIODES

Units are available with anode-to-case and cathode-to-case connections (standard and reverse polarity). For reverse polarity add suffix "R" to type number.

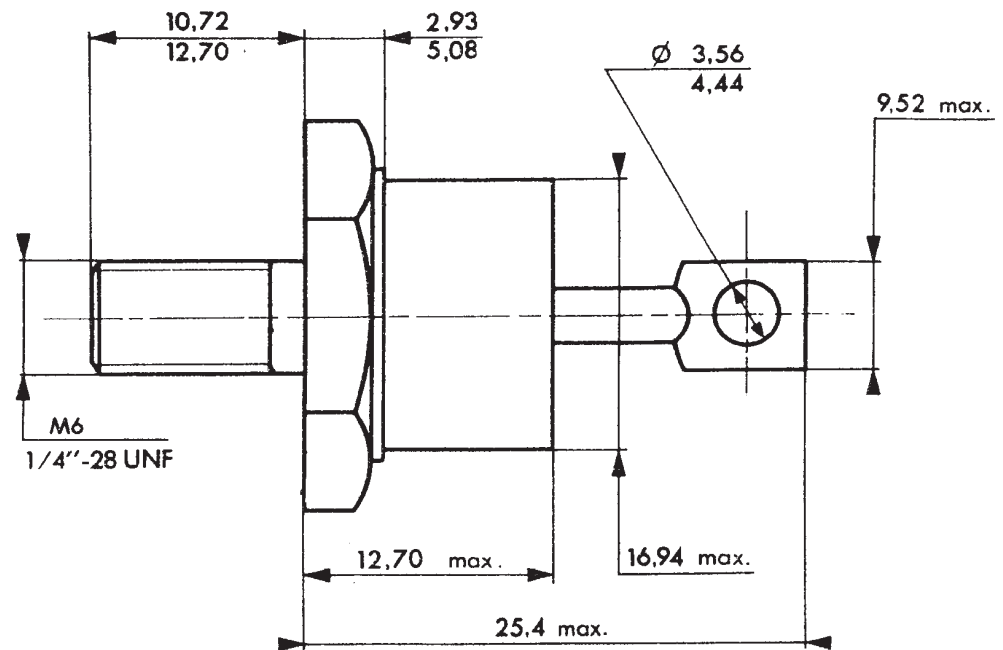
### MAXIMUM RATINGS:

Junction and Storage  
Temperature: -65°C to +175°C  
DC Power Dissipation: 50 Watts  
(Derate 0.5W/°C above 75°C)

### TOLERANCE DESIGNATION:

Standard voltage tolerances are +/-5% with B suffix, +/-10% with an A suffix and +/-20% with no suffix.

### D05



- Standard polarity is anode-to-case
- Reverse polarity with cathode-to-case by designation R suffix in part number, e.g. 1N3305RB, etc.

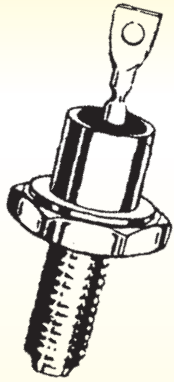


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**50 WATTS  
ZENER  
DIODES**



\*VR1 – Test Voltage for 5% Tolerance Device

VR2 – Test Voltage for 10% Tolerance Device

No Leakage Specified as 20% Tolerance Device

- Standard voltage tolerance are +/-5% with B suffix, +/-10% with an A suffix, and +/-20% with no suffix
- Standard polarity is anode-to-case
- Reverse polarity with cathode-to-case by designating R suffix in part number, e.g. 1N3305RB, etc

**ELECTRICAL CHARACTERISTICS** (TC = 30°C unless otherwise specified, VF = 1.5 V max @ 10 A on all types)

| Type Number | Nominal Zener Voltage Vz @ IZT Volts | Test Current (IZT) mA | Max Zener Impedance |                      | Max DC Zener 75°C Case Temp (IZM) mA | Reverse Leakage Current |       |       | Typical Zener Voltage Temperature Coeff. %/°C |
|-------------|--------------------------------------|-----------------------|---------------------|----------------------|--------------------------------------|-------------------------|-------|-------|---|
|             |                                      |                       | ZT @ IZT Ohms       | ZZK @ IZT = 5mA Ohms |                                      | IRMax                   | VR1   | VR2   |   |
| 1N4549      | 3.9                                  | 3200                  | 0.16                | 400                  | 11900                                | 150                     | 0.5   | 0.5   | -.025   |
| 1N4550      | 4.3                                  | 2900                  | 0.16                | 500                  | 10650                                | 150                     | 0.5   | 0.5   | -.025   |
| 1N4551      | 4.7                                  | 2650                  | 0.12                | 600                  | 9700                                 | 100                     | 1.0   | 1.0   | .010  |
| 1N4552      | 5.1                                  | 2450                  | 0.12                | 650                  | 8900                                 | 20                      | 1.0   | 1.0   | .015  |
| 1N4553      | 5.6                                  | 2250                  | 0.12                | 900                  | 8100                                 | 20                      | 1.0   | 1.0   | .030  |
| 1N4554      | 6.2                                  | 2000                  | 0.14                | 1000                 | 7300                                 | 20                      | 2.0   | 2.0   | .040  |
| 1N3305      | 6.8                                  | 1850                  | 0.2                 | 70                   | 6600                                 | 150                     | 4.5   | 4.3   | .040  |
| 1N4555      | 6.8                                  | 1850                  | 0.16                | 200                  | 6650                                 | 10                      | 2.0   | 2.0   | .045  |
| 1N3306      | 7.5                                  | 1700                  | 0.3                 | 70                   | 5900                                 | 75                      | 5.0   | 4.7   | .045  |
| 1N4556      | 7.5                                  | 1650                  | 0.24                | 100                  | 6050                                 | 10                      | 3.0   | 3.0   | .053  |
| 1N3307      | 8.2                                  | 1500                  | 0.4                 | 70                   | 5200                                 | 50                      | 5.4   | 5.2   | .048  |
| 1N3308      | 9.1                                  | 1370                  | 0.5                 | 70                   | 4800                                 | 25                      | 6.1   | 5.7   | .051  |
| 1N3309      | 10                                   | 1200                  | 0.6                 | 80                   | 4300                                 | 10                      | 6.7   | 6.3   | .055  |
| 1N3310      | 11                                   | 1100                  | 0.8                 | 80                   | 3900                                 | 5                       | 8.4   | 8.0   | .060  |
| 1N3311      | 12                                   | 1000                  | 1.0                 | 80                   | 3600                                 | 5                       | 9.1   | 8.6   | .065  |
| 1N3312      | 13                                   | 960                   | 1.1                 | 80                   | 3300                                 | 5                       | 9.9   | 9.4   | .065  |
| 1N3313      | 14                                   | 890                   | 1.2                 | 80                   | 3000                                 | 5                       | 10.6  | 10.1  | .070  |
| 1N3314      | 15                                   | 830                   | 1.4                 | 80                   | 2800                                 | 5                       | 11.4  | 10.8  | .070  |
| 1N3315      | 16                                   | 780                   | 1.6                 | 80                   | 2650                                 | 5                       | 12.2  | 11.5  | .070  |
| 1N3316      | 17                                   | 740                   | 1.8                 | 80                   | 2500                                 | 5                       | 13.0  | 12.2  | .075  |
| 1N3317      | 18                                   | 700                   | 2.0                 | 80                   | 2300                                 | 5                       | 13.7  | 13.0  | .075  |
| 1N3318      | 19                                   | 660                   | 2.2                 | 80                   | 2200                                 | 5                       | 14.4  | 13.7  | .075  |
| 1N3319      | 20                                   | 630                   | 2.4                 | 80                   | 2100                                 | 5                       | 15.2  | 14.4  | .075  |
| 1N3320      | 22                                   | 570                   | 2.5                 | 80                   | 1900                                 | 5                       | 16.7  | 15.8  | .080  |
| 1N3321      | 24                                   | 520                   | 2.6                 | 80                   | 1750                                 | 5                       | 18.2  | 17.3  | .080  |
| 1N3322      | 25                                   | 500                   | 2.7                 | 90                   | 1550                                 | 5                       | 19.0  | 18.0  | .080  |
| 1N3323      | 27                                   | 460                   | 2.8                 | 90                   | 1500                                 | 5                       | 20.6  | 19.4  | .085  |
| 1N3324      | 30                                   | 420                   | 3.0                 | 90                   | 1400                                 | 5                       | 22.8  | 21.6  | .085  |
| 1N3325      | 33                                   | 380                   | 3.2                 | 90                   | 1300                                 | 5                       | 25.1  | 23.8  | .085  |
| 1N3326      | 36                                   | 350                   | 3.5                 | 90                   | 1150                                 | 5                       | 27.4  | 25.9  | .085  |
| 1N3327      | 39                                   | 320                   | 4.0                 | 90                   | 1050                                 | 5                       | 29.7  | 28.1  | .090  |
| 1N3328      | 43                                   | 290                   | 4.5                 | 90                   | 975                                  | 5                       | 32.7  | 31.0  | .090  |
| 1N3329      | 45                                   | 280                   | 4.5                 | 100                  | 930                                  | 5                       | 34.2  | 32.4  | .090  |
| 1N3330      | 47                                   | 270                   | 5.0                 | 100                  | 880                                  | 5                       | 35.8  | 33.8  | .090  |
| 1N3331      | 50                                   | 250                   | 5.0                 | 100                  | 830                                  | 5                       | 38.0  | 36.0  | .090  |
| 1N3332      | 51                                   | 245                   | 5.2                 | 100                  | 810                                  | 5                       | 38.8  | 36.7  | .090  |
| 1N3333      | 52                                   | 240                   | 5.5                 | 100                  | 790                                  | 5                       | 39.5  | 37.4  | .090  |
| 1N3334      | 56                                   | 220                   | 6                   | 110                  | 740                                  | 5                       | 42.6  | 40.3  | .090  |
| 1N3335      | 62                                   | 200                   | 7                   | 120                  | 660                                  | 5                       | 47.1  | 44.6  | .090  |
| 1N3336      | 68                                   | 180                   | 8                   | 140                  | 600                                  | 5                       | 51.7  | 49.0  | .090  |
| 1N3337      | 75                                   | 170                   | 9                   | 150                  | 540                                  | 5                       | 56.0  | 54.0  | .090  |
| 1N3338      | 82                                   | 150                   | 11                  | 160                  | 490                                  | 5                       | 62.2  | 59.0  | .090  |
| 1N3339      | 91                                   | 140                   | 15                  | 180                  | 420                                  | 5                       | 69.2  | 65.5  | .090  |
| 1N3340      | 100                                  | 120                   | 20                  | 200                  | 400                                  | 5                       | 76.0  | 72.0  | .090  |
| 1N3341      | 105                                  | 120                   | 25                  | 210                  | 380                                  | 5                       | 79.8  | 75.6  | .095  |
| 1N3342      | 110                                  | 110                   | 30                  | 220                  | 365                                  | 5                       | 83.6  | 79.2  | .095  |
| 1N3343      | 120                                  | 100                   | 40                  | 240                  | 335                                  | 5                       | 91.2  | 86.4  | .095  |
| 1N3344      | 130                                  | 95                    | 50                  | 275                  | 310                                  | 5                       | 98.8  | 93.6  | .095  |
| 1N3345      | 140                                  | 90                    | 60                  | 325                  | 290                                  | 5                       | 106.4 | 100.8 | .095  |
| 1N3346      | 150                                  | 85                    | 75                  | 400                  | 270                                  | 5                       | 114.0 | 108.0 | .095  |
| 1N3347      | 160                                  | 80                    | 80                  | 450                  | 250                                  | 5                       | 121.6 | 115.2 | .095  |
| 1N3348      | 175                                  | 70                    | 85                  | 500                  | 230                                  | 5                       | 133.0 | 126.0 | .095  |
| 1N3349      | 180                                  | 68                    | 90                  | 525                  | 220                                  | 5                       | 136.8 | 129.6 | .095  |
| 1N3350      | 200                                  | 65                    | 100                 | 600                  | 200                                  | 5                       | 152.0 | 144.0 | .100  |

