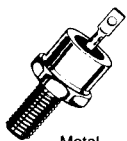



Table 28. General-Purpose Regulator Diodes (continued)

| Nominal Zener Voltage (*Note 1) | 10 Watt Cathode to Case = 1N3993 Series Anode to Case = 1N2970 Series (*Notes 9,10) | 50 Watt Anode to Case (*Notes 9,10) |
|------------------------------------|--|---|
| |  Metal Case 56-03 (DO-203AA) |  Metal Case 58-01 (DO-5 Type) |
| 1.8 | | |
| 2 | | |
| 2.2 | | |
| 2.4 | | |
| 2.5 | | |
| 2.7 | | |
| 2.8 | | |
| 3 | | |
| 3.3 | | |
| 3.6 | | |
| 3.9 | 1N3993&R | 1N4549A&RA |
| 4.3 | 1N3994&R | 1N4550A&RA |
| 4.7 | 1N3995&R | 1N4551A&RA |
| 5.1 | 1N3996&R | 1N4552A&RA |
| 5.6 | 1N3997&R | 1N4553A&RA |
| 6 | | |
| 6.2 | 1N3998&R | 1N4554A&RA |
| 6.8 | 1N3999&R | 1N4555A&RA |
| | 1N2970A&RA | 1N3305A&RA |
| 7.5 | 1N4000&R | 1N4556A&RA |
| | 1N2971A&RA | 1N3306A&RA |
| 8.2 | 1N2972A&RA | 1N3307A&RA |
| 8.7 | | |
| 9.1 | 1N2973A&RA | 1N3308A&RA |
| 10 | 1N2974A&RA | 1N3309A&RA |
| 11 | 1N2975A&RA | 1N3310A&RA |
| 12 | 1N2976A&RA | 1N3311A&RA |
| 13 | 1N2977A&RA | 1N3312A&RA |
| 14 | 1N2878A&RA | 1N3313A&RA |
| 15 | 1N2979A&RA | 1N3314A&RA |
| 16 | 1N2980A&RA | 1N3315A&RA |
| 17 | | 1N3316A&RA |
| 18 | 1N2982A&RA | 1N3317A&RA |
| 19 | 1N2983A&RA | 1N3318A&RA |
| 20 | 1N2984A&RA | 1N3319A&RA |
| 22 | 1N2985A&RA | 1N3320A&RA |
| 24 | 1N2986A&RA | 1N3321A&RA |
| 25 | | 1N3322A&RA |
| 27 | 1N2988A&RA | 1N3323A&RA |
| 28 | | |
| 30 | 1N2989A&RA | 1N3324A&RA |
| 33 | 1N2990A&RA | 1N3325A&RA |
| 36 | 1N2991A&RA | 1N3326A&RA |
| 39 | 1N2992A&RA | 1N3327A&RA |
| 43 | 1N2993A&RA | 1N3328A&RA |
| 47 | 1N2996A&RA | 1N33330A&RA |
| 50 | | |
| 51 | 1N2997A&RA | 1N3332A&RA |
| 52 | | 1N3334A&RA |
| 56 | 1N2999A&RA | |
| 60 | | 1N3335A&RA |
| 62 | 1N3000A&RA | 1N3336A&RA |
| 68 | 1N3001A&RA | |
| 75 | 1N3002A&RA | 1N3337A&RA |
| 82 | 1N3003A&RA | 1N3338A&RA |
| 87 | | |
| 91 | 1N3004A&RA | 1N3339A&RA |
| 100 | 1N3005A&RA | 1N3340A&RA |
| 105 | | |
| 110 | 1N3007A&RA | 1N3342A&RA |
| 120 | 1N3008A&RA | 1N3343A&RA |
| 130 | 1N3009A&RA | 1N3344A&RA |
| 140 | | 1N3345A&RA |
| 150 | 1N3011A&RA | 1N3346A&RA |
| 160 | 1N3012A&RA | 1N3347A&RA |
| 170 | | |
| 175 | | |
| 180 | 1N3014A&RA | 1N3349A&RA |
| 200 | 1N3015A&RA | 1N3350A&RA |

JAN JANTX (V) available, ±5% only.

NOTES

- The zener voltage is measured at approximately 1/4 the rated power, with the following exceptions: the 1N4678-4717 is measured with $I_{ZT} = 50 \mu\text{Adc}$; the 1N4614/1N4099 is measured with $I_{ZT} = 250 \mu\text{Adc}$; the 1N4370/1N746 and the 1N5221-5242 are measured with $I_{ZT} = 20 \text{ mAdc}$; the 1N5985A-6012A is measured with $I_{ZT} = 5 \text{ mA}$; 1N6013A-6023A is measured with $I_{ZT} = 2 \text{ mA}$; 1N6024-6025 is measured with $I_{ZT} = 1 \text{ mA}$.

Tolerances

- No suffix = ±5%
C suffix = 2%
D suffix = 1%
- A Suffix = ±10% with guaranteed limits on V_Z , V_F , and I_R only
B suffix = ±5%
C suffix = ±2%
D suffix = ±1%
- MLL4370/1N4370/1N746 series:
No suffix = ±10%
A suffix = ±5%
C suffix = 2%
D suffix = 1%
MLL957/1N957 series:
A suffix = ±10%
B suffix = ±5%
C suffix = 2%
D suffix = 1%

Military parts in 1N4370/746/962/4099/4614/5518 series supplied in DO-7. Military parts in 1N4370/746/962/4099/4614/5518 are also available in the cost effective DO-204AH (DO-35) package as the -1 version. This version can be ordered by inserting a 1 between the part number and the JAN, JTX or JTXV suffix, i.e. 1N746A1JAN. MIL-STD 19500/117 and 127 state the -1 version is a direct substitute for the non -1 version. The -1 versions appear on MIL-STD 701 as the preferred parts for new designs.

- No suffix = ±10% with guaranteed limits on V_Z , V_F and I_R only.
A suffix = ±10%
B suffix = ±5%
- No suffix = ±10%
A suffix = ±5%
C suffix = 2%
D suffix = 1%
- 1N3821 series: No suffix = ±10%
A suffix = ±5%
1N3016 series: A suffix = ±10%
B suffix = ±5%
- A suffix = ±10% C suffix = ±2%
B suffix = ±5% D suffix = ±1%
- A suffix = ±10%
B suffix = ±5%
Exception:
1N3993-1N4000: No suffix = ±10%
A suffix = ±5%

- RA and RB = reverse polarity types available
- Available in 8 mm tape and reel
T1 cathode facing sprocket holes
T2 anode facing sprocket holes
- Available in 12 mm tape and reel
T1 cathode facing sprocket holes
T2 anode facing sprocket holes
- Available in 8 mm tape and reel, both T1 and T2 options.