



**LOW VOLTAGE AVALANCHE ZENER DIODES  
HIGH PERFORMANCE: LOW NOISE, LOW LEAKAGE  
1N5518 - 1N5546**

| PART NUMBER<br>(NOTE 1) | NOMINAL ZENER VOLTAGE<br>$V_z @ I_{zt}$<br>(VOLTS) | TEST CURRENT<br>$I_{zt}$<br>(mA) | MAX ZENER IMPEDANCE<br>(NOTE 2)<br>$Z_{zt} @ I_{zt}$<br>(OHMS) | MAX REVERSE LEAKAGE CURRENT |                     |                     | MAX NOISE DENSITY AT<br>(NOTE 3)<br>$I_z = 250 \mu A$<br>(ND $\mu V / \sqrt{Hz}$ ) | MAX REGULATION FACTOR<br>(NOTE 4)<br>$\Delta V_z$<br>(VOLTS) |      | MAX REGULATOR CURRENT<br>$I_{zm}$<br>(mA) |
|-------------------------|--|----------------------------------|--|-----------------------------|---------------------|---------------------|--|--|------|---|
|                         |  |                                  |  | $I_r$<br>( $\mu A_{dc}$ )   | $V_{r1}$<br>(VOLTS) | $V_{r2}$<br>(VOLTS) |  | $I_{zL}$<br>(mA)   |      |   |
| 1N5518                  | 3.3  | 20                               | 26   | 5.0                         | 0.9                 | 1.0                 | 0.5  | 0.90   | 2.0  | 115                                       |
| 1N5519                  | 3.6  | 20                               | 24   | 3.0                         | 0.9                 | 1.0                 | 0.5  | 0.90   | 2.0  | 105                                       |
| 1N5520                  | 3.9  | 20                               | 22   | 1.0                         | 0.9                 | 1.0                 | 0.5  | 0.85   | 2.0  | 98  |
| 1N5521                  | 4.3  | 20                               | 18   | 3.0                         | 1.0                 | 1.5                 | 0.5  | 0.75   | 2.0  | 88  |
| 1N5522                  | 4.7  | 10                               | 22   | 2.0                         | 1.5                 | 2.0                 | 0.5  | 0.60   | 1.0  | 81  |
| 1N5523                  | 5.1  | 5                                | 26   | 2.0                         | 2.0                 | 2.5                 | 0.5  | 0.65   | 0.25 | 75  |
| 1N5524                  | 5.6  | 3                                | 30   | 2.0                         | 3.0                 | 3.5                 | 1.0  | 0.30   | 0.25 | 68  |
| 1N5525                  | 6.2  | 1                                | 30   | 1.0                         | 4.5                 | 5.0                 | 1.0  | 0.20   | 0.01 | 61  |
| 1N5526                  | 6.8  | 1                                | 30   | 1.0                         | 5.5                 | 6.2                 | 1.0  | 0.10   | 0.01 | 56  |
| 1N5527                  | 7.5  | 1                                | 35   | 0.5                         | 6.0                 | 6.8                 | 2.0  | 0.05   | 0.01 | 51  |
| 1N5528                  | 8.2  | 1                                | 40   | 0.5                         | 6.5                 | 7.5                 | 4.0  | 0.05   | 0.01 | 46  |
| 1N5529                  | 9.1  | 1                                | 45   | 0.1                         | 7.0                 | 8.2                 | 4.0  | 0.05   | 0.01 | 42  |
| 1N5530                  | 10.0   | 1                                | 60   | 0.05                        | 8.0                 | 9.1                 | 4.0  | 0.10   | 0.01 | 38  |
| 1N5531                  | 11.0   | 1                                | 80   | 0.05                        | 9.0                 | 9.9                 | 5.0  | 0.20   | 0.01 | 35  |
| 1N5532                  | 12.0   | 1                                | 90   | 0.05                        | 9.5                 | 10.8                | 10.0   | 0.20   | 0.01 | 32  |
| 1N5533                  | 13.0   | 1                                | 90   | 0.01                        | 10.5                | 11.7                | 15.0   | 0.20   | 0.01 | 29  |
| 1N5534                  | 14.0   | 1                                | 100  | 0.01                        | 11.5                | 12.6                | 20.0   | 0.20   | 0.01 | 27  |
| 1N5535                  | 15.0   | 1                                | 100  | 0.01                        | 12.5                | 13.5                | 20.0   | 0.20   | 0.01 | 25  |
| 1N5536                  | 16.0   | 1                                | 100  | 0.01                        | 13.0                | 14.4                | 20.0   | 0.20   | 0.01 | 24  |
| 1N5537                  | 17.0   | 1                                | 100  | 0.01                        | 14.0                | 15.3                | 20.0   | 0.20   | 0.01 | 22  |
| 1N5538                  | 18.0   | 1                                | 100  | 0.01                        | 15.0                | 16.2                | 20.0   | 0.20   | 0.01 | 21  |
| 1N5539                  | 19.0   | 1                                | 100  | 0.01                        | 16.0                | 17.1                | 20.0   | 0.20   | 0.01 | 20  |
| 1N5540                  | 20.0   | 1                                | 100  | 0.01                        | 17.0                | 18.0                | 20.0   | 0.20   | 0.01 | 19  |
| 1N5541                  | 22.0   | 1                                | 100  | 0.01                        | 18.0                | 19.8                | 25.0   | 0.25   | 0.01 | 17  |
| 1N5542                  | 24.0   | 1                                | 100  | 0.01                        | 20.0                | 21.6                | 30.0   | 0.30   | 0.01 | 16  |
| 1N5543                  | 25.0   | 1                                | 100  | 0.01                        | 21.0                | 22.4                | 35.0   | 0.35   | 0.01 | 15  |
| 1N5544                  | 28.0   | 1                                | 100  | 0.01                        | 23.0                | 25.2                | 40.0   | 0.40   | 0.01 | 14  |
| 1N5545                  | 30.0   | 1                                | 100  | 0.01                        | 24.0                | 27.0                | 45.0   | 0.45   | 0.01 | 13  |
| 1N5546                  | 33.0   | 1                                | 100  | 0.01                        | 28.0                | 29.7                | 50.0   | 0.50   | 0.01 | 12  |

1. Package Style      DO-7
2. Suffix denotes  $V_z$  tolerance: non suffix  $\pm 20\%$ , A suffix  $\pm 10\%$ :  $I_r @ V_{r1}, V_z, + V_f$  only.  
Suffix B  $\pm 5\%$ :  $I_r @ V_{r2}, V_z, \Delta V_z, V_f, ND$ .
3. Measured with 10%, 60 Hz AC superimposed on  $I_{zt}$ .
4. Measured from 1000 to 3000 Hz.
5. Difference between  $V_z$  at  $I_{zt}$  and  $I_{zL}$ .
6. Forward Voltage ( $V_f$ ):  $I_f = 200mA, T_a = 25^\circ C, Max = 1.1 Vdc$ .

MILITARY SCREENING AVAILABLE