



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

| PART<br>NUMBER<br>(NOTE 1) | NOMINAL<br>ZENER<br>VOLTAGE<br>Vz @ Iz <sub>t</sub><br>(VOLTS) | TEST<br>CURRENT<br>Iz <sub>t</sub><br>(mA) | MAX ZENER<br>IMPEDANCE<br>(NOTE 2)<br>Zzt @ Iz <sub>t</sub><br>(OHMS) | MAX REVERSE LEAKAGE<br>CURRENT |                |                | MAX NOISE<br>DENSITY AT<br>(NOTE 3)<br>Iz = 250 µA<br>(ND µV / √Hz) | MAX REGULATION<br>FACTOR<br>(NOTE 4)<br>Δ Vz<br>(VOLTS) |      | MAX<br>REGULATOR<br>CURRENT<br>Izm<br>(mA) |
|----------------------------|----------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------|--------------------------------|----------------|----------------|---------------------------------------------------------------------|---------------------------------------------------------|------|--------------------------------------------|
|                            |                                                                |                                            |                                                                       | Ir<br>(µA)                     | Vr1<br>(VOLTS) | Vr2<br>(VOLTS) |                                                                     | IzL<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 Vz tolerance: non suffix ±20%, A suffix ±10%: Ir @ Vr1, Vz, + Vf only.  
Suffix B ±5%: Ir @ Vr2, Vz, ΔVz, Vf, ND.
3. Measured with 10%, 60 Hz AC superimposed on Iz<sub>t</sub>.
4. Measured from 1000 to 3000 Hz.
5. Difference between Vz at Iz<sub>t</sub> and Iz<sub>L</sub>.
6. Forward Voltage (Vf): If = 200mA, Ta = 25°C, Max = 1.1 Vdc.

MILITARY SCREENING AVAILABLE