

**500mW 5% DO-35 ZENER DIODE**

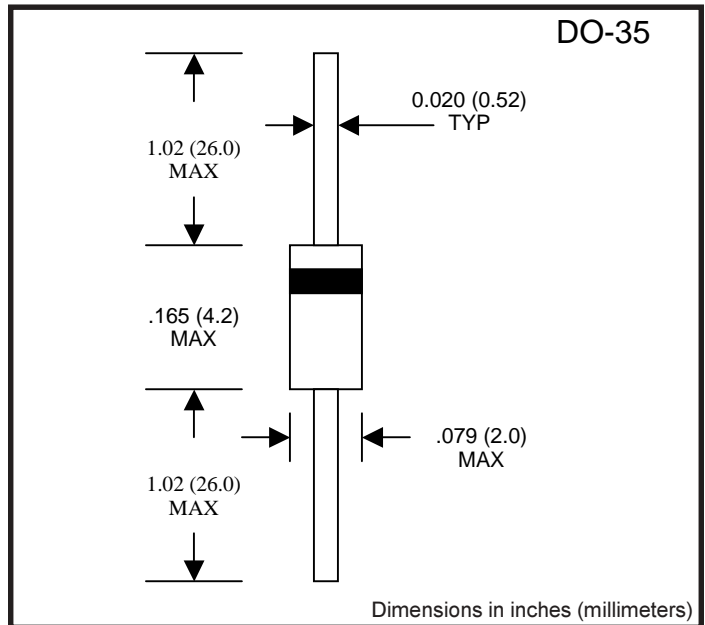
**Absolute Maximum Ratings (Ta=25°C)**

| Items                                   | Symbol           | Ratings    | Unit |
|---|------------------|------------|------|
| Power Dissipation                       | P <sub>TOT</sub> | 500        | mW   |
| Power Derating above 75°C               |                  | 4          | K/mW |
| Forward Voltage @I <sub>f</sub> = 10 mA | V <sub>f</sub>   | 1.2        | V    |
| V <sub>z</sub> Tolerance                |                  | 5          | %    |
| Junction Temp.                          | T <sub>J</sub>   | -65 to 175 | °C   |
| Storage Temp.                           | T <sub>STG</sub> | -65 to 175 | °C   |

**Mechanical Data**

| Items       | Materials                  |
|-------------|----------------------------|
| Package     | DO-35                      |
| Case        | Hermetically sealed glass  |
| Lead Finish | Double Stud/Solder Plating |
| Chip        | Glass Passivated           |

**Dimensions**



**Electrical Characteristics (Ta=25°C)**

| Type   | ZENER VOLTAGE      | Max ZENER IMPEDANCE | Max ZENER IMPEDANCE | Max ZENER IMPEDANCE                            | Max REVERSE CURRENT |                     | TEMP. COEFF.             |
|--------|--------------------|---------------------|---------------------|--|---------------------|---------------------|--------------------------|
|        | V <sub>Z</sub> (V) | I <sub>ZT</sub> (m) | R <sub>Z</sub> (Ω)  | I <sub>ZT</sub> = 0.25mA<br>R <sub>Z</sub> (Ω) | V <sub>R</sub> (V)  | I <sub>R</sub> (μA) | dv <sub>Z</sub> (% / °C) |
| 1N5223 | 2.7                | 20                  | 30                  | 1300   | 0.95                | 75                  | -0.080                   |
| 1N5224 | 2.8                | 20                  | 30                  | 1400   | 0.95                | 75                  | -0.080                   |
| 1N5225 | 3.0                | 20                  | 29                  | 1600   | 0.95                | 50                  | -0.075                   |
| 1N5226 | 3.3                | 20                  | 28                  | 1600   | 0.95                | 25                  | -0.070                   |
| 1N5227 | 3.6                | 20                  | 24                  | 1700   | 0.95                | 15                  | -0.065                   |
| 1N5228 | 3.9                | 20                  | 23                  | 1900   | 0.95                | 10                  | -0.060                   |
| 1N5229 | 4.3                | 20                  | 22                  | 2000   | 0.95                | 5.0                 | +0.055                   |
| 1N5230 | 4.7                | 20                  | 19                  | 1900   | 1.9                 | 5.0                 | +0.030                   |
| 1N5231 | 5.1                | 20                  | 17                  | 1600   | 1.9                 | 5.0                 | +0.030                   |
| 1N5232 | 5.6                | 20                  | 11                  | 1600   | 2.9                 | 5.0                 | +0.038                   |
| 1N5233 | 6.0                | 20                  | 7.0                 | 1600   | 3.3                 | 5.0                 | +0.038                   |
| 1N5234 | 6.2                | 20                  | 7.0                 | 1000   | 3.8                 | 5.0                 | +0.045                   |
| 1N5235 | 6.8                | 20                  | 5.0                 | 750  | 4.8                 | 3.0                 | +0.050                   |
| 1N5236 | 7.5                | 20                  | 6.0                 | 500  | 5.7                 | 3.0                 | +0.058                   |
| 1N5237 | 8.2                | 20                  | 8.0                 | 500  | 6.2                 | 3.0                 | +0.062                   |

| Type   | ZENER VOLTAGE | Max ZENER IMPEDANCE | Max ZENER IMPEDANCE | Max ZENER IMPEDANCE                     | Max REVERSE CURRENT |                   | TEMP. COEFF.              |
|--------|---------------|---------------------|---------------------|---|---------------------|-------------------|---------------------------|
|        | $V_Z$ (V)     | $I_{ZT}(m)$         | $R_Z$ ( $\Omega$ )  | $I_{ZT} = 0.25mA$<br>$R_Z$ ( $\Omega$ ) | $V_R$ (V)           | $I_R$ ( $\mu A$ ) | $dv_z$ (% / $^{\circ}C$ ) |
| 1N5238 | 8.7           | 20                  | 8.0                 | 600                                     | 6.2                 | 3.0               | +0.065                    |
| 1N5239 | 9.1           | 20                  | 10                  | 600                                     | 6.7                 | 3.0               | +0.068                    |
| 1N5240 | 10            | 20                  | 17                  | 600                                     | 7.6                 | 3.0               | +0.075                    |
| 1N5241 | 11            | 20                  | 22                  | 600                                     | 8.0                 | 2.0               | +0.076                    |
| 1N5242 | 12            | 20                  | 30                  | 600                                     | 8.7                 | 1.0               | +0.077                    |
| 1N5243 | 13            | 9.5                 | 13                  | 600                                     | 9.4                 | 0.5               | +0.079                    |
| 1N5244 | 14            | 9.0                 | 15                  | 600                                     | 9.5                 | 0.1               | +0.082                    |
| 1N5245 | 15            | 8.5                 | 16                  | 600                                     | 10.5                | 0.1               | +0.082                    |
| 1N5246 | 16            | 7.8                 | 17                  | 600                                     | 11.4                | 0.1               | +0.083                    |
| 1N5247 | 17            | 7.4                 | 19                  | 600                                     | 12.4                | 0.1               | +0.084                    |
| 1N5248 | 18            | 7.0                 | 21                  | 600                                     | 13.3                | 0.1               | +0.085                    |
| 1N5249 | 19            | 6.6                 | 23                  | 600                                     | 13.3                | 0.1               | +0.086                    |
| 1N5250 | 20            | 6.2                 | 25                  | 600                                     | 14.3                | 0.1               | +0.086                    |
| 1N5251 | 22            | 5.6                 | 29                  | 600                                     | 16.2                | 0.1               | +0.087                    |
| 1N5252 | 24            | 5.2                 | 33                  | 600                                     | 17.1                | 0.1               | +0.088                    |
| 1N5253 | 25            | 5.0                 | 35                  | 600                                     | 18.1                | 0.1               | +0.089                    |
| 1N5254 | 27            | 4.6                 | 41                  | 600                                     | 20                  | 0.1               | +0.090                    |
| 1N5255 | 28            | 4.5                 | 44                  | 600                                     | 20                  | 0.1               | +0.091                    |
| 1N5256 | 30            | 4.2                 | 49                  | 600                                     | 22                  | 0.1               | +0.091                    |
| 1N5257 | 33            | 3.8                 | 58                  | 700                                     | 24                  | 0.1               | +0.092                    |
| 1N5258 | 36            | 3.4                 | 70                  | 700                                     | 26                  | 0.1               | +0.093                    |
| 1N5259 | 39            | 3.2                 | 80                  | 800                                     | 29                  | 0.1               | +0.094                    |
| 1N5260 | 43            | 3.0                 | 93                  | 900                                     | 31                  | 0.1               | +0.095                    |
| 1N5261 | 47            | 2.7                 | 105                 | 1000                                    | 34                  | 0.1               | +0.095                    |
| 1N5262 | 51            | 2.5                 | 125                 | 1100                                    | 37                  | 0.1               | +0.096                    |
| 1N5263 | 56            | 2.2                 | 150                 | 1300                                    | 43                  | 0.1               | +0.096                    |
| 1N5264 | 60            | 2.1                 | 170                 | 1400                                    | 46                  | 0.1               | +0.097                    |