

## 500mW 5% DO-35 ZENER DIODE

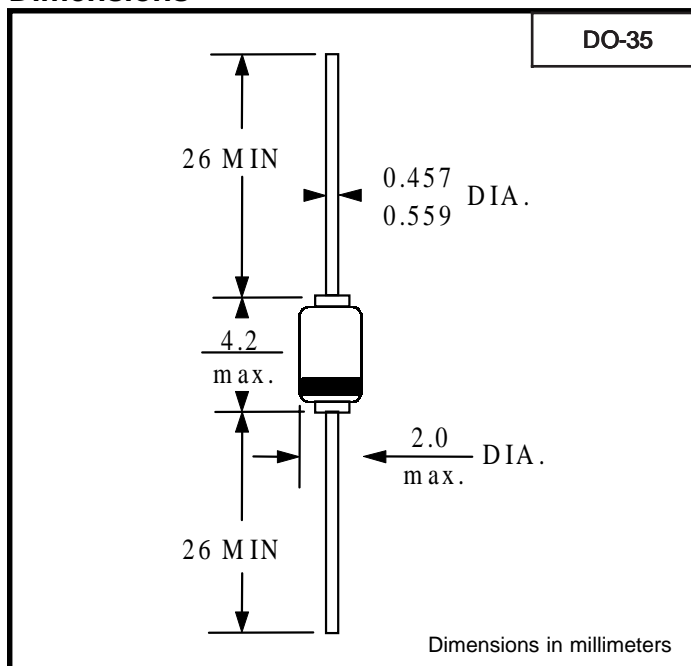
### Absolute Maximum Ratings (Ta=25°C)

| Items                           | Symbol           | Ratings    | Unit  |
|---------------------------------|------------------|------------|-------|
| Power Dissipation               | $P_{TOT}$        | 500        | mW    |
| Power Derating<br>(above 75 °C) |                  | 4.0        | mW/°C |
| Forward Voltage<br>@If = 10 mA  | Vf               | 1.2        | V     |
| Vz 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<br>Izt = 0.25mA | MAXIMUM REVERSE CURRENT |         | TEMP. COEFF.   |
|---------|---------------|---------|---------------------|----------|-------------------------------------|-------------------------|---------|----------------|
|         | Vz(V)         | Izt(mA) | Rz (ohms)           | Izt(mA0) | Rz (ohms)                           | VR (V)                  | IR (uA) | dvz<br>(%/ °C) |
| 1N5223B | 2.7           | 20      | 30                  | 20       | 1300                                | 1.0                     | 75      | -0.080         |
| 1N5224B | 2.8           | 20      | 30                  | 20       | 1400                                | 1.0                     | 75      | -0.080         |
| 1N5225B | 3.0           | 20      | 29                  | 20       | 1600                                | 1.0                     | 50      | -0.075         |
| 1N5226B | 3.3           | 20      | 28                  | 20       | 1600                                | 1.0                     | 25      | -0.070         |
| 1N5227B | 3.6           | 20      | 24                  | 20       | 1700                                | 1.0                     | 15      | -0.065         |
| 1N5228B | 3.9           | 20      | 23                  | 20       | 1900                                | 1.0                     | 10      | -0.060         |
| 1N5229B | 4.3           | 20      | 22                  | 20       | 2000                                | 1.0                     | 5       | +/-0.055       |
| 1N5230B | 4.7           | 20      | 19                  | 20       | 1900                                | 2.0                     | 5       | +/-0.030       |
| 1N5231B | 5.1           | 20      | 17                  | 20       | 1600                                | 2.0                     | 5       | +/-0.030       |
| 1N5232B | 5.6           | 20      | 11                  | 20       | 1600                                | 3.0                     | 5       | +/-0.038       |
| 1N5233B | 6.0           | 20      | 7                   | 20       | 1600                                | 3.5                     | 5       | +/-0.038       |
| 1N5234B | 6.2           | 20      | 7                   | 20       | 1000                                | 4.0                     | 5       | +0.045         |
| 1N5235B | 6.8           | 20      | 5                   | 20       | 750                                 | 5.6                     | 3       | +0.050         |

## Electrical Characteristics (Ta=25°C)

| TYPE     | ZENER VOLTAGE |         | MAX ZENER IMPEDANCE |          | MAX ZENER IMPEDANCE<br>Izt = 0.25mA | MAXIMUM REVERSE CURRENT |         | TEMP. COEFF.   |
|----------|---------------|---------|---------------------|----------|-------------------------------------|-------------------------|---------|----------------|
|          | Vz(V)         | Izt(mA) | Rz (ohms)           | Izt(mA0) | Rz (ohms)                           | VR (V)                  | IR (uA) | dvz<br>(%/ °C) |
| 1N5236B  | 7.5           | 20      | 6                   | 20       | 500                                 | 6.0                     | 3.0     | +0.058         |
| 1N5237B  | 8.2           | 20      | 8                   | 20       | 500                                 | 6.5                     | 3.0     | +0.062         |
| 1N5238B  | 8.7           | 20      | 8                   | 20       | 600                                 | 6.5                     | 3.0     | +0.065         |
| 1N5239B  | 9.1           | 20      | 10                  | 20       | 600                                 | 7.0                     | 3.0     | +0.068         |
| 1N5240B  | 10            | 20      | 17                  | 20       | 600                                 | 8.0                     | 3.0     | +0.075         |
| 1N5241B  | 11            | 20      | 22                  | 20       | 600                                 | 8.4                     | 2.0     | +0.076         |
| 1N5242B  | 12            | 20      | 30                  | 20       | 600                                 | 9.1                     | 1.0     | +0.077         |
| 1N5243B  | 13            | 9.5     | 13                  | 9.5      | 600                                 | 9.9                     | 0.5     | +0.079         |
| 1N5244B  | 14            | 9.0     | 15                  | 9.0      | 600                                 | 10                      | 0.1     | +0.082         |
| 1N5245B  | 15            | 8.5     | 16                  | 8.5      | 600                                 | 11                      | 0.1     | +0.082         |
| 1N5246B  | 16            | 7.8     | 17                  | 7.8      | 600                                 | 12                      | 0.1     | +0.083         |
| 1N5247B  | 17            | 7.4     | 19                  | 7.4      | 600                                 | 13                      | 0.1     | +0.084         |
| 1N5248B  | 18            | 7.0     | 21                  | 7.0      | 600                                 | 14                      | 0.1     | +0.085         |
| 1N5249B  | 19            | 6.6     | 23                  | 6.6      | 600                                 | 14                      | 0.1     | +0.086         |
| 1N5250B  | 20            | 6.2     | 25                  | 6.2      | 600                                 | 15                      | 0.1     | +0.086         |
| 1N5251B  | 22            | 5.6     | 29                  | 5.6      | 600                                 | 17                      | 0.1     | +0.087         |
| 1N5252B  | 24            | 5.2     | 33                  | 5.2      | 600                                 | 18                      | 0.1     | +0.088         |
| 1N5253B  | 25            | 5.0     | 35                  | 5.0      | 600                                 | 19                      | 0.1     | +0.089         |
| 1N5254B  | 27            | 4.6     | 41                  | 4.6      | 600                                 | 21                      | 0.1     | +0.090         |
| 1N5255B  | 28            | 4.5     | 44                  | 4.5      | 600                                 | 21                      | 0.1     | +0.091         |
| 1N5256B  | 30            | 4.2     | 49                  | 4.2      | 600                                 | 23                      | 0.1     | +0.091         |
| 1N5257B  | 33            | 3.8     | 58                  | 3.8      | 700                                 | 25                      | 0.1     | +0.092         |
| 1N5258B  | 36            | 3.4     | 70                  | 3.4      | 700                                 | 27                      | 0.1     | +0.093         |
| 1N52459B | 39            | 3.2     | 80                  | 3.2      | 800                                 | 30                      | 0.1     | +0.094         |
| 1N5260B  | 43            | 3.0     | 93                  | 3.0      | 900                                 | 33                      | 0.1     | +0.095         |
| 1N5261B  | 47            | 2.7     | 105                 | 2.7      | 1000                                | 36                      | 0.1     | +0.095         |

### Notes:

- The Electrical characteristics are measured after allowinh the device to stabilize for 20 sec. when mounted with a 3/8" minimum lead length from the case.
- Temperature Coefficient (dvz)
  - Izt= 7.5ma, T1= 25°C, T2= 125°C (1N5223B - 1N5242B)
  - Izt= rated Izt, T1= 25°C, T2= 125°C (1N5243B - 1N5261B)