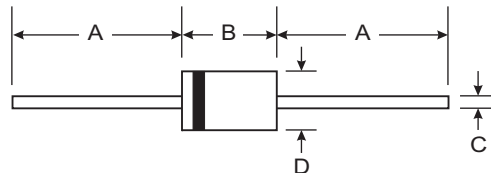


## Features

- 500mW Power Dissipation
- High Stability
- Surface Mount Equivalents Available
- Hermetic Package
- $V_Z$  - Tolerance  $\pm 5\%$
- **Lead Free Finish, RoHS Compliant (Note 2)**



## Mechanical Data

- Case: DO-35
- Case Material: Glass
- Moisture Sensitivity: Level 1 per J-STD-020C
- Leads: Solderable per MIL-STD-202, Method 208
- Terminals: Finish - Sn96.5Ag3.5. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.13 grams (approximate)

| DO-35                |       |      |
|----------------------|-------|------|
| Dim                  | Min   | Max  |
| A                    | 25.40 | —    |
| B                    | —     | 4.00 |
| C                    | —     | 0.60 |
| D                    | —     | 2.00 |
| All Dimensions in mm |       |      |

## Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic                                       | Symbol          | Value       | Unit                      |
|--|-----------------|-------------|---------------------------|
| Power Dissipation (Note 1)                           | $P_d$           | 500         | mW                        |
| Thermal Resistance, Junction to Ambient Air (Note 1) | $R_{\theta JA}$ | 300         | $^\circ\text{C}/\text{W}$ |
| Forward Voltage @ $I_F = 200\text{mA}$               | $V_F$           | 1.1         | V                         |
| Operating and Storage Temperature Range              | $T_j, T_{STG}$  | -65 to +200 | $^\circ\text{C}$          |

- Notes:
1. Valid provided that leads are kept at  $T_L \leq 75^\circ\text{C}$  with lead length = 9.5mm (3/8") from case; derate above  $75^\circ\text{C}$ .
  2. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied where applicable, see EU Directive Annex Notes 5 and 7.



**Electrical Characteristics** @ T<sub>A</sub> = 25°C unless otherwise specified

**Table 1**

| Type Number | Zener Voltage Range (Note 3)     |         |         | Test Current    | Maximum Zener Impedance           |  | Maximum Reverse Current |                 | Maximum Temperature Coefficient @ I <sub>ZT</sub> |
|-------------|----------------------------------|---------|---------|-----------------|-----------------------------------|--|-------------------------|-----------------|---|
|             | V <sub>Z</sub> @ I <sub>ZT</sub> |         |         | I <sub>ZT</sub> | Z <sub>zT</sub> @ I <sub>ZT</sub> | Z <sub>zK</sub> @ I <sub>zK</sub> = 0.25mA | I <sub>R</sub>          | @V <sub>R</sub> |   |
|             | Nom (V)                          | Min (V) | Max (V) | mA              | Ω                                 | Ω  | μA                      | V               |   |
| 1N5221B     | 2.4                              | 2.28    | 2.52    | 20              | 30                                | 1200                                       | 100                     | 1.0             | -0.085  |
| 1N5222B     | 2.5                              | 2.38    | 2.63    | 20              | 30                                | 1250                                       | 100                     | 1.0             | -0.085  |
| 1N5223B     | 2.7                              | 2.57    | 2.84    | 20              | 30                                | 1300                                       | 75                      | 1.0             | -0.080  |
| 1N5224B     | 2.8                              | 2.66    | 2.94    | 20              | 30                                | 1400                                       | 75                      | 1.0             | -0.080  |
| 1N5225B     | 3.0                              | 2.85    | 3.15    | 20              | 29                                | 1600                                       | 50                      | 1.0             | -0.075  |
| 1N5226B     | 3.3                              | 3.14    | 3.47    | 20              | 28                                | 1600                                       | 25                      | 1.0             | -0.070  |
| 1N5227B     | 3.6                              | 3.42    | 3.78    | 20              | 24                                | 1700                                       | 15                      | 1.0             | -0.065  |
| 1N5228B     | 3.9                              | 3.71    | 4.10    | 20              | 23                                | 1900                                       | 10                      | 1.0             | -0.060  |
| 1N5229B     | 4.3                              | 4.09    | 4.52    | 20              | 22                                | 2000                                       | 5.0                     | 1.0             | +0.055  |
| 1N5230B     | 4.7                              | 4.47    | 4.94    | 20              | 19                                | 1900                                       | 5.0                     | 2.0             | +0.030  |
| 1N5231B     | 5.1                              | 4.85    | 5.36    | 20              | 17                                | 1600                                       | 5.0                     | 2.0             | +0.030  |
| 1N5232B     | 5.6                              | 5.32    | 5.88    | 20              | 11                                | 1600                                       | 5.0                     | 3.0             | +0.038  |
| 1N5233B     | 6.0                              | 5.70    | 6.30    | 20              | 7.0                               | 1600                                       | 5.0                     | 3.5             | +0.038  |
| 1N5234B     | 6.2                              | 5.89    | 6.51    | 20              | 7.0                               | 1000                                       | 5.0                     | 4.0             | +0.045  |
| 1N5235B     | 6.8                              | 6.46    | 7.14    | 20              | 5.0                               | 750  | 3.0                     | 5.0             | +0.050  |
| 1N5236B     | 7.5                              | 7.13    | 7.88    | 20              | 6.0                               | 500  | 3.0                     | 6.0             | +0.058  |
| 1N5237B     | 8.2                              | 7.79    | 8.61    | 20              | 8.0                               | 500  | 3.0                     | 6.5             | +0.062  |
| 1N5238B     | 8.7                              | 8.27    | 9.14    | 20              | 8.0                               | 600  | 3.0                     | 6.5             | +0.065  |
| 1N5239B     | 9.1                              | 8.65    | 9.56    | 20              | 10                                | 600  | 3.0                     | 7.0             | +0.068  |
| 1N5240B     | 10                               | 9.50    | 10.50   | 20              | 17                                | 600  | 3.0                     | 8.0             | +0.075  |
| 1N5241B     | 11                               | 10.45   | 11.55   | 20              | 22                                | 600  | 2.0                     | 8.4             | +0.076  |
| 1N5242B     | 12                               | 11.40   | 12.60   | 20              | 30                                | 600  | 1.0                     | 9.1             | +0.077  |
| 1N5243B     | 13                               | 12.35   | 13.65   | 9.5             | 13                                | 600  | 0.5                     | 9.9             | +0.079  |
| 1N5244B     | 14                               | 13.30   | 14.70   | 9.0             | 15                                | 600  | 0.1                     | 10              | +0.082  |
| 1N5245B     | 15                               | 14.25   | 15.75   | 8.5             | 16                                | 600  | 0.1                     | 11              | +0.082  |
| 1N5246B     | 16                               | 15.20   | 16.80   | 7.8             | 17                                | 600  | 0.1                     | 12              | +0.083  |
| 1N5247B     | 17                               | 16.15   | 17.85   | 7.4             | 19                                | 600  | 0.1                     | 13              | +0.084  |
| 1N5248B     | 18                               | 17.10   | 18.90   | 7.0             | 21                                | 600  | 0.1                     | 14              | +0.085  |
| 1N5249B     | 19                               | 18.05   | 19.95   | 6.6             | 23                                | 600  | 0.1                     | 14              | +0.086  |
| 1N5250B     | 20                               | 19.00   | 21.00   | 6.2             | 25                                | 600  | 0.1                     | 15              | +0.086  |
| 1N5251B     | 22                               | 20.90   | 23.10   | 5.6             | 29                                | 600  | 0.1                     | 17              | +0.087  |
| 1N5252B     | 24                               | 22.80   | 25.20   | 5.2             | 33                                | 600  | 0.1                     | 18              | +0.087  |
| 1N5253B     | 25                               | 23.75   | 26.25   | 5.0             | 35                                | 600  | 0.1                     | 19              | +0.089  |
| 1N5254B     | 27                               | 25.65   | 28.35   | 4.6             | 41                                | 600  | 0.1                     | 21              | +0.090  |
| 1N5255B     | 28                               | 26.60   | 29.40   | 4.5             | 44                                | 600  | 0.1                     | 21              | +0.091  |
| 1N5256B     | 30                               | 28.50   | 31.50   | 4.2             | 49                                | 600  | 0.1                     | 23              | +0.091  |
| 1N5257B     | 33                               | 31.35   | 34.65   | 3.8             | 58                                | 700  | 0.1                     | 25              | +0.092  |
| 1N5258B     | 36                               | 34.20   | 37.80   | 3.4             | 70                                | 700  | 0.1                     | 27              | +0.093  |
| 1N5259B     | 39                               | 37.05   | 40.95   | 3.2             | 80                                | 800  | 0.1                     | 30              | +0.094  |
| 1N5260B     | 43                               | 40.85   | 45.15   | 3.0             | 93                                | 900  | 0.1                     | 33              | +0.095  |
| 1N5261B     | 47                               | 44.65   | 49.35   | 2.7             | 105                               | 1000                                       | 0.1                     | 36              | +0.095  |
| 1N5262B     | 51                               | 48.45   | 53.55   | 2.5             | 125                               | 1100                                       | 0.1                     | 39              | +0.096  |
| 1N5263B     | 56                               | 53.20   | 58.80   | 2.2             | 150                               | 1300                                       | 0.1                     | 43              | +0.096  |
| 1N5264B     | 60                               | 57.00   | 63.00   | 2.1             | 170                               | 1400                                       | 0.1                     | 46              | +0.097  |
| 1N5265B     | 62                               | 58.90   | 65.10   | 2.0             | 185                               | 1400                                       | 0.1                     | 47              | +0.097  |
| 1N5266B     | 68                               | 64.60   | 71.40   | 1.8             | 230                               | 1600                                       | 0.1                     | 52              | +0.097  |
| 1N5267B     | 75                               | 71.25   | 78.75   | 1.7             | 270                               | 1700                                       | 0.1                     | 56              | +0.098  |

Notes: 3. Based on dc measurement at thermal equilibrium; lead length = 9.5mm (3/8"); thermal resistance of heat sink = 30°C/W.



## Ordering Information (Note 5)

| Device           | Packaging | Shipping       |
|------------------|-----------|----------------|
| (Type Number)-A* | DO-35     | 5K/Ammo Pack   |
| (Type Number)-T* | DO-35     | 5K/Tape & Reel |

- Notes:
- \*Add "-A" or "-T" to the appropriate type number in Table 1. Example: 6.2V Zener = 1N5234B-A for ammo pack.
  - For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

### IMPORTANT NOTICE

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Diodes Incorporated does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

### LIFE SUPPORT

Diodes Incorporated products are not authorized for use as critical components in life support devices or systems without the expressed written approval of the President of Diodes Incorporated.

EEPW.com.cn 电子产品世界