

Surface Mount Zener Diodes

(Pb) Lead(Pb)-Free

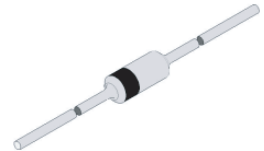
Features:

- * High Rliability
- * Very Sharp Reverse Characteristic
- * Low Reverse Current Level
- * VZ-Tolerance $\pm 5\%$

Mechanical Data:

- * Voltage stabilization
- * Case : DO-35 Glass Case
- * Weight : Approx 0.13 gram

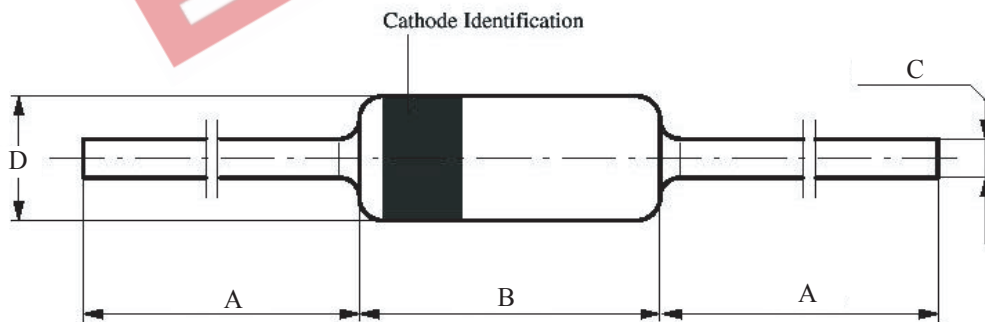
**SMALL SIGNAL
ZENER DIODES
0.5WATTS**



DO-35

DO-35 Outline Dimensions

Unit:mm



| DIM | A | | B | | C | | D | |
|-------|------|-----|-----|------|-----|------|-----|-----|
| | Min | Max | Min | Max | Min | Max | Min | Max |
| DO-35 | 26.0 | - | - | 4.20 | - | 0.55 | - | 2.0 |

Maximum Ratings and Electrical Characteristics (TA=25°C Unless Otherwise Noted)

| Parameter | Symbol | Value | Unit |
|--|-----------------|-----------|--------------------|
| Power dissipation $T_{amb} \leq 75^{\circ}\text{C}$ | P_V | 500 | mW |
| Z-current | I_Z | P_V/V_Z | mA |
| Junction ambient $l=9.5\text{mm}(3/8")T_L=\text{constant}$ | $R_{\theta JA}$ | 300 | K/W |
| Junction temperature | T_j | 200 | $^{\circ}\text{C}$ |
| Storage temperature range | T_{stg} | -65~+200 | $^{\circ}\text{C}$ |

Electrical Characteristics

| Parameter | Symbol | Min | Typ | Max | Unit |
|------------------------------------|--------|-----|-----|-----|------|
| Forward voltage $I_F=200\text{mA}$ | V_F | - | - | 1.1 | V |

| Type | $V_{Znom}^{1)}$ | I_{ZT} | for | r_{zT} | r_{zK} | @ | I_{ZK} | I_R | @ | V_R | TK_{VZ} |
|---------|-----------------|----------|-----|----------|----------|---|----------|---------|---|-------|-----------|
| | V | mA | | Ω | Ω | | mA | μA | | V | %/K |
| 1N5221B | 2.4 | 20 | | <30 | <1200 | | 0.25 | <100 | | 1.0 | <-0.085 |
| 1N5222B | 2.5 | 20 | | <30 | <1250 | | 0.25 | <100 | | 1.0 | <-0.085 |
| 1N5223B | 2.7 | 20 | | <30 | <1300 | | 0.25 | <75 | | 1.0 | <-0.080 |
| 1N5224B | 2.8 | 20 | | <30 | <1400 | | 0.25 | <75 | | 1.0 | <-0.080 |
| 1N5225B | 3.0 | 20 | | <29 | <1600 | | 0.25 | <50 | | 1.0 | <-0.075 |
| 1N5226B | 3.3 | 20 | | <28 | <1600 | | 0.25 | <25 | | 1.0 | <-0.070 |
| 1N5227B | 3.6 | 20 | | <24 | <1700 | | 0.25 | <15 | | 1.0 | <-0.065 |
| 1N5228B | 3.9 | 20 | | <23 | <1900 | | 0.25 | <10 | | 1.0 | <-0.060 |
| 1N5229B | 4.3 | 20 | | <22 | <2000 | | 0.25 | <5 | | 1.0 | <+0.055 |
| 1N5230B | 4.7 | 20 | | <19 | <1900 | | 0.25 | <5 | | 2.0 | <+0.030 |
| 1N5231B | 5.1 | 20 | | <17 | <1600 | | 0.25 | <5 | | 2.0 | <+0.030 |
| 1N5232B | 5.6 | 20 | | <11 | <1600 | | 0.25 | <5 | | 3.0 | <+0.038 |
| 1N5233B | 6.0 | 20 | | <7 | <1600 | | 0.25 | <5 | | 3.5 | <+0.038 |
| 1N5234B | 6.2 | 20 | | <7 | <1000 | | 0.25 | <5 | | 4.0 | <+0.045 |
| 1N5235B | 6.8 | 20 | | <5 | <750 | | 0.25 | <3 | | 5.0 | <+0.050 |
| 1N5236B | 7.5 | 20 | | <6 | <500 | | 0.25 | <3 | | 6.0 | <+0.058 |
| 1N5237B | 8.2 | 20 | | <8 | <500 | | 0.25 | <3 | | 6.5 | <+0.062 |
| 1N5238B | 8.7 | 20 | | <8 | <600 | | 0.25 | <3 | | 6.5 | <+0.065 |
| 1N5239B | 9.1 | 20 | | <10 | <600 | | 0.25 | <3 | | 7.0 | <+0.068 |
| 1N5240B | 10 | 20 | | <17 | <600 | | 0.25 | <3 | | 8.0 | <+0.075 |
| 1N5241B | 11 | 20 | | <22 | <600 | | 0.25 | <2 | | 8.4 | <+0.076 |
| 1N5242B | 12 | 20 | | <30 | <600 | | 0.25 | <1 | | 9.1 | <+0.077 |
| 1N5243B | 13 | 9.5 | | <13 | <600 | | 0.25 | <0.5 | | 9.9 | <+0.079 |
| 1N5244B | 14 | 9.0 | | <15 | <600 | | 0.25 | <0.1 | | 10 | <+0.082 |
| 1N5245B | 15 | 8.5 | | <16 | <600 | | 0.25 | <0.1 | | 11 | <+0.082 |
| 1N5246B | 16 | 7.8 | | <17 | <600 | | 0.25 | <0.1 | | 12 | <+0.083 |
| 1N5247B | 17 | 7.4 | | <19 | <600 | | 0.25 | <0.1 | | 13 | <+0.084 |
| 1N5248B | 18 | 7.0 | | <21 | <600 | | 0.25 | <0.1 | | 14 | <+0.085 |
| 1N5249B | 19 | 6.6 | | <23 | <600 | | 0.25 | <0.1 | | 15 | <+0.086 |
| 1N5250B | 20 | 6.2 | | <25 | <600 | | 0.25 | <0.1 | | 16 | <+0.086 |
| 1N5251B | 22 | 5.6 | | <29 | <600 | | 0.25 | <0.1 | | 17 | <+0.087 |
| 1N5252B | 24 | 5.2 | | <33 | <600 | | 0.25 | <0.1 | | 18 | <+0.088 |
| 1N5253B | 25 | 5.0 | | <35 | <600 | | 0.25 | <0.1 | | 19 | <+0.089 |
| 1N5254B | 27 | 4.6 | | <41 | <600 | | 0.25 | <0.1 | | 21 | <+0.090 |
| 1N5255B | 28 | 4.5 | | <44 | <600 | | 0.25 | <0.1 | | 21 | <+0.091 |
| 1N5256B | 30 | 4.2 | | <49 | <600 | | 0.25 | <0.1 | | 23 | <+0.091 |
| 1N5257B | 33 | 3.8 | | <58 | <700 | | 0.25 | <0.1 | | 25 | <+0.092 |
| 1N5258B | 36 | 3.4 | | <70 | <700 | | 0.25 | <0.1 | | 27 | <+0.093 |
| 1N5259B | 39 | 3.2 | | <80 | <800 | | 0.25 | <0.1 | | 30 | <+0.094 |
| 1N5260B | 43 | 3.0 | | <93 | <900 | | 0.25 | <0.1 | | 33 | <+0.095 |
| 1N5261B | 47 | 2.7 | | <105 | <1000 | | 0.25 | <0.1 | | 36 | <+0.095 |
| 1N5262B | 51 | 2.5 | | <125 | <1100 | | 0.25 | <0.1 | | 39 | <+0.096 |
| 1N5263B | 56 | 2.2 | | <150 | <1300 | | 0.25 | <0.1 | | 43 | <+0.096 |
| 1N5264B | 60 | 2.1 | | <170 | <1400 | | 0.25 | <0.1 | | 46 | <+0.097 |
| 1N5265B | 62 | 2.0 | | <185 | <1400 | | 0.25 | <0.1 | | 47 | <+0.097 |
| 1N5266B | 68 | 1.8 | | <230 | <1600 | | 0.25 | <0.1 | | 52 | <+0.097 |
| 1N5267B | 75 | 1.7 | | <270 | <1700 | | 0.25 | <0.1 | | 58 | <+0.098 |

1) Based on DC-measurement at thermal equilibrium while maintaining the lead temperature(T_L)at 30°C, 9.5mm(3/8") from the diode body.