

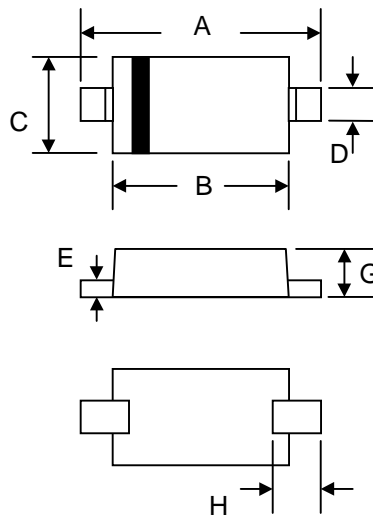
VOLTAGE RANGE: 2.0 - 36V
POWER: 0.2Watts

Features

- Complete voltage range 2.0 to 36 volts
- Silicon planar power Zener diodes
- Low Zener impedance and low leakage current
- Popular in Asian designs
- Compact surface mount device
- Ideal for auto mated mounting

Mechanical Data

- Case: SOD-323, Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.004 grams (approx.)



| SOD-323 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 2.30 | 2.70 |
| B | 1.75 | 1.95 |
| C | 1.15 | 1.35 |
| D | 0.25 | 0.35 |
| E | 0.05 | 0.15 |
| G | 0.70 | 0.95 |
| H | 0.30 | — |
| All Dimensions in mm | | |

Maximum Ratings and Thermal Characteristics (Ta 25 °C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|-----------------|--------------------|----------------------|
| Test current I | I_{ZM} | 5.0 | mA |
| Power Dissipation at $T_{amp} = 25\text{ }^{\circ}\text{C}$ | P_{tot} | 200 ⁽¹⁾ | Mw |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 650 ⁽²⁾ | $^{\circ}\text{C/W}$ |
| Junction Temperature | T_J | 150 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_S | -65 to + 150 | $^{\circ}\text{C}$ |

Notes:

- (1) Device on fiberglass substrate
 (2) Valid provided that electrodes are ambient temperature



ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

| PART NUMBER | ZENER VOLTAGE RANGE | | | TEST CURRENT | | REVERSE CURRENT | | DYNAMIC RESISTANCE | |
|-------------|---------------------|------|-------|--------------|-----------|-----------------|-----|--------------------|-----------------------|
| | V_Z at I_{ZT1} | | | I_{ZT1} | I_{ZT2} | I_R at V_R | | Z_Z at I_{ZT1} | Z_{ZK} at I_{ZT2} |
| | V | | | mA | | μA | V | Ω | |
| | MIN. | NOM. | MAX. | | | MAX. | | MAX. | MAX. |
| GDZ2V0B | 2.02 | 2.0 | 2.2 | 5 | 0.5 | 120 | 0.5 | 100 | 1000 |
| GDZ2V2B | 2.22 | 2.2 | 2.41 | 5 | 0.5 | 120 | 0.7 | 100 | 1000 |
| GDZ2V4B | 2.43 | 2.4 | 2.63 | 5 | 0.5 | 120 | 1 | 100 | 1000 |
| GDZ2V7B | 2.69 | 2.7 | 2.91 | 5 | 0.5 | 100 | 1 | 110 | 1000 |
| GDZ3V0B | 3.01 | 3.0 | 3.22 | 5 | 0.5 | 50 | 1 | 120 | 1000 |
| GDZ3V3B | 3.32 | 3.3 | 3.53 | 5 | 0.5 | 20 | 1 | 120 | 1000 |
| GDZ3V6B | 3.6 | 3.6 | 3.845 | 5 | 1 | 10 | 1 | 100 | 1000 |
| GDZ3V9B | 3.89 | 3.9 | 4.16 | 5 | 1 | 5 | 1 | 100 | 1000 |
| GDZ4V3B | 4.17 | 4.3 | 4.43 | 5 | 1 | 5 | 1 | 100 | 1000 |
| GDZ4V7B | 4.55 | 4.7 | 4.75 | 5 | 0.5 | 2 | 1 | 100 | 800 |
| GDZ5V1B | 4.98 | 5.1 | 5.2 | 5 | 0.5 | 2 | 1 | 80 | 500 |
| GDZ5V6B | 5.49 | 5.6 | 5.73 | 5 | 0.5 | 1 | 2.5 | 60 | 200 |
| GDZ6V2B | 6.06 | 6.2 | 6.33 | 5 | 0.5 | 1 | 3 | 60 | 100 |
| GDZ6V8B | 6.65 | 6.8 | 6.93 | 5 | 0.5 | 0.5 | 3.5 | 40 | 60 |
| GDZ7V5B | 7.28 | 7.5 | 7.6 | 5 | 0.5 | 0.5 | 4 | 30 | 60 |
| GDZ8V2B | 8.02 | 8.2 | 8.36 | 5 | 0.5 | 0.5 | 5 | 30 | 60 |
| GDZ9V1B | 8.85 | 9.1 | 9.23 | 5 | 0.5 | 0.5 | 6 | 30 | 60 |
| GDZ10B | 9.77 | 10 | 10.21 | 5 | 0.5 | 0.1 | 7 | 30 | 60 |
| GDZ11B | 10.76 | 11 | 11.22 | 5 | 0.5 | 0.1 | 8 | 30 | 60 |
| GDZ12B | 11.74 | 12 | 12.24 | 5 | 0.5 | 0.1 | 9 | 30 | 80 |
| GDZ13B | 12.91 | 13 | 13.49 | 5 | 0.5 | 0.1 | 10 | 37 | 80 |
| GDZ15B | 14.34 | 15 | 14.98 | 5 | 0.5 | 0.1 | 11 | 42 | 80 |
| GDZ16B | 15.85 | 16 | 16.51 | 5 | 0.5 | 0.1 | 12 | 50 | 80 |
| GDZ18B | 17.56 | 18 | 18.35 | 5 | 0.5 | 0.1 | 13 | 65 | 80 |
| GDZ20B | 19.52 | 20 | 20.39 | 5 | 0.5 | 0.1 | 15 | 85 | 100 |
| GDZ22B | 21.54 | 22 | 22.47 | 5 | 0.5 | 0.1 | 17 | 100 | 100 |
| GDZ24B | 23.72 | 24 | 24.78 | 5 | 0.5 | 0.1 | 19 | 120 | 120 |
| GDZ27B | 26.19 | 27 | 27.53 | 5 | 0.5 | 0.1 | 21 | 150 | 150 |
| GDZ30B | 29.19 | 30 | 30.69 | 5 | 0.5 | 0.1 | 23 | 200 | 200 |
| GDZ33B | 32.15 | 33 | 33.79 | 5 | 0.5 | 0.1 | 25 | 250 | 250 |
| GDZ36B | 35.07 | 36 | 36.87 | 5 | 0.5 | 0.1 | 27 | 300 | 300 |

Notes

- The Zener voltage V_Z is measured 40 ms after power is supplied
- The operating resistance (Z_Z, Z_{ZK}) are measured by superimposing a 1 kHz alternating current on the regulated current (I_Z).