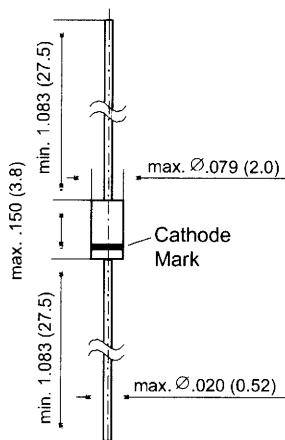


1N957 THRU 1N978

DO-35



- ◆ Silicon Planar Power Zener Diodes
- ◆ Standard Zener voltage tolerance is $\pm 5\%$ for "B" suffix. Other tolerances are available upon request.

MECHANICAL DATA

Case: DO-35 Glass Case

Weight: approx. 0.13 g

Dimensions are in inches and (millimeters)

MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOL | VALUE | UNIT |
|---|-----------|--------------------|------|
| Zener Current (see Table "Characteristics") | | | |
| Power Dissipation at $T_L = 75^\circ\text{C}$ | P_{tot} | 500 ⁽¹⁾ | mW |
| Junction Temperature | T_j | 175 | °C |
| Storage Temperature Range | T_s | - 65 to +175 | °C |

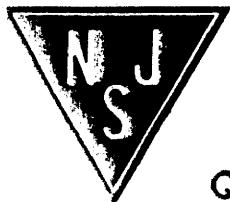
NOTES:

(1) T_L is measured 3/8" from body.

| | SYMBOL | MIN. | TYP. | MAX. | UNIT |
|---|------------|------|------|--------------------|-------|
| Thermal Resistance Junction to Ambient Air | R_{thJA} | - | - | 300 ⁽¹⁾ | °C/W |
| Forward Voltage at $I_F = 200\text{ mA}$ | V_F | - | - | 1.5 | Volts |

NOTES:

(1) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| Type Number | Nominal Zener Voltage $V_Z^{(3)}$ (Volts) | Test Current I_{ZT} (mA) | Maximum Zener Impedance ⁽¹⁾ | | | Maximum Regulator Current $I_{ZM}^{(2)}$ (mA) | Maximum Reverse Current | |
|-------------|---|----------------------------|--|----------------------------------|---------------|---|--------------------------|--------------------------|
| | | | Z_{ZT} @ I_{ZT} (Ω) | Z_{ZK} @ I_{ZK} (Ω) | I_{ZK} (mA) | | I_R Maximum (μ A) | Test Voltage Vdc (Volts) |
| 1N957B | 6.8 | 18.5 | 4.5 | 700 | 1 | 47 | 150 | 5.2 |
| 1N958B | 7.5 | 16.5 | 5.5 | 700 | 0.5 | 42 | 75 | 5.7 |
| 1N959B | 8.2 | 15 | 6.5 | 700 | 0.5 | 38 | 50 | 6.2 |
| 1N960B | 9.1 | 14 | 7.5 | 700 | 0.5 | 35 | 25 | 6.9 |
| 1N961B | 10 | 12.5 | 8.5 | 700 | 0.25 | 32 | 10 | 7.6 |
| 1N962B | 11 | 11.5 | 9.5 | 700 | 0.25 | 28 | 5 | 8.4 |
| 1N963B | 12 | 10.5 | 11.5 | 700 | 0.25 | 26 | 5 | 9.1 |
| 1N964B | 13 | 9.5 | 13 | 700 | 0.25 | 24 | 5 | 9.9 |
| 1N965B | 15 | 8.5 | 16 | 700 | 0.25 | 21 | 5 | 11.4 |
| 1N966B | 16 | 7.8 | 17 | 700 | 0.25 | 19 | 5 | 12.2 |
| 1N967B | 18 | 7 | 21 | 750 | 0.25 | 17 | 5 | 13.7 |
| 1N968B | 20 | 6.2 | 25 | 750 | 0.25 | 15 | 5 | 15.2 |
| 1N969B | 22 | 5.6 | 29 | 750 | 0.25 | 14 | 5 | 16.7 |
| 1N970B | 24 | 5.2 | 33 | 750 | 0.25 | 13 | 5 | 18.2 |
| 1N971B | 27 | 4.6 | 41 | 750 | 0.25 | 11 | 5 | 20.6 |
| 1N972B | 30 | 4.2 | 49 | 1000 | 0.25 | 10 | 5 | 22.8 |
| 1N973B | 33 | 3.8 | 58 | 1000 | 0.25 | 9.2 | 5 | 25.1 |
| 1N974B | 36 | 3.4 | 70 | 1000 | 0.25 | 8.5 | 5 | 27.4 |
| 1N975B | 39 | 3.2 | 80 | 1000 | 0.25 | 7.8 | 5 | 29.7 |
| 1N976B | 43 | 3 | 93 | 1500 | 0.25 | 7 | 5 | 32.7 |
| 1N977B | 47 | 2.7 | 105 | 1500 | 0.25 | 6.4 | 5 | 35.8 |
| 1N978B | 51 | 2.5 | 125 | 1500 | 0.25 | 5.9 | 5 | 38.8 |

NOTES:

- (1) The Zener Impedance is derived from the 1 KHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT}) is superimposed on I_{ZT} . Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.
- (2) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.
- (3) Measured with device junction in thermal equilibrium.