

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

1N3675B thru 1N3710B

1.0W ZENER DIODE
6.8 VOLTS to 200 VOLTS
5% TOLERANCE

JEDEC DO-41 Case

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N3675B series silicon zener diode is a high quality voltage regulator for use in automotive, industrial, commercial, entertainment, and computer applications.

ABSOLUTE MAXIMUM RATINGS

Power Dissipation (@ $T_A=25^\circ\text{C}$)
Operating and Storage Junction Temperature

| SYMBOL | TOLERANCE |
|----------------|-------------------|
| P_D | 1.0W |
| T_J, T_{STG} | -65 to +150°C ±5% |

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

| TYPE NO. | ZENER VOLTAGE | TEST CURRENT | MAXIMUM ZENER IMPEDANCE | MAXIMUM REVERSE CURRENT | | MAXIMUM DC CURRENT |
|----------|-----------------------|------------------|-----------------------------------|----------------------------|----------------|--------------------|
| | $V_Z @ I_{ZT}$ (V) | I_{ZT} (mA) | $Z_{ZT} @ I_{ZT}$ (Ω) | I_R (μA) | @ V_R (V) | I_{ZM} (mA) |
| 1N3675B | 6.8 | 18.5 | 4.5 | 150 | 5.2 | 100 |
| 1N3676B | 7.5 | 16.5 | 5.5 | 75 | 5.7 | 90 |
| 1N3677B | 8.2 | 15.0 | 6.5 | 50 | 6.2 | 80 |
| 1N3678B | 9.1 | 14.0 | 7.5 | 25 | 6.9 | 70 |
| 1N3679B | 10 | 12.5 | 8.5 | 10 | 7.6 | 65 |
| 1N3680B | 11 | 11.5 | 9.5 | 5.0 | 8.4 | 55 |
| 1N3681B | 12 | 10.5 | 11.5 | 5.0 | 9.1 | 53 |
| 1N3682B | 13 | 9.5 | 13 | 5.0 | 9.9 | 50 |
| 1N3683B | 15 | 8.5 | 16 | 5.0 | 11.4 | 42 |
| 1N3684B | 16 | 7.8 | 17 | 5.0 | 12.2 | 40 |
| 1N3685B | 18 | 7.0 | 21 | 5.0 | 13.7 | 35 |
| 1N3686B | 20 | 6.2 | 25 | 5.0 | 15.2 | 32 |
| 1N3687B | 22 | 5.6 | 29 | 5.0 | 16.7 | 29 |
| 1N3688B | 24 | 5.2 | 33 | 5.0 | 18.2 | 26 |
| 1N3689B | 27 | 4.6 | 41 | 5.0 | 20.6 | 23 |
| 1N3690B | 30 | 4.2 | 49 | 5.0 | 22.8 | 21 |
| 1N3691B | 33 | 3.8 | 58 | 5.0 | 25.1 | 20 |
| 1N3692B | 36 | 3.4 | 70 | 5.0 | 27.4 | 18 |
| 1N3693B | 39 | 3.2 | 80 | 5.0 | 29.7 | 15 |
| 1N3694B | 43 | 3.0 | 93 | 5.0 | 32.7 | 14 |
| 1N3695B | 47 | 2.7 | 105 | 5.0 | 35.8 | 13 |
| 1N3696B | 51 | 2.5 | 125 | 5.0 | 38.8 | 12.2 |
| 1N3697B | 56 | 2.2 | 150 | 5.0 | 42.6 | 11 |
| 1N3698B | 62 | 2.0 | 185 | 5.0 | 47.1 | 10 |
| 1N3699B | 68 | 1.8 | 230 | 5.0 | 51.7 | 9 |
| 1N3700B | 75 | 1.7 | 270 | 5.0 | 56.0 | 8.5 |

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$) continued

| TYPE NO. | ZENER VOLTAGE | TEST CURRENT | MAXIMUM ZENER IMPEDANCE | MAXIMUM REVERSE CURRENT | | MAXIMUM DC CURRENT |
|----------|-----------------------|------------------|-----------------------------------|----------------------------|--------------|-----------------------|
| | $V_Z @ I_{ZT}$ (V) | I_{ZT} (mA) | $Z_{ZT} @ I_{ZT}$ (Ω) | I_R (μA) | V_R (V) | I_{ZM} (mA) |
| 1N3701B | 82 | 1.5 | 330 | 5.0 | 62.2 | 7.5 |
| 1N3702B | 91 | 1.4 | 400 | 5.0 | 69.2 | 7 |
| 1N3703B | 100 | 1.3 | 500 | 5.0 | 76.0 | 6 |
| 1N3704B | 110 | 1.1 | 750 | 5.0 | 83.6 | 5.4 |
| 1N3705B | 120 | 1.0 | 900 | 5.0 | 91.2 | 5.2 |
| 1N3706B | 130 | 0.95 | 1100 | 5.0 | 98.8 | 4.5 |
| 1N3707B | 150 | 0.85 | 1500 | 5.0 | 114.0 | 3.7 |
| 1N3708B | 160 | 0.80 | 1700 | 5.0 | 121.6 | 3.6 |
| 1N3709B | 180 | 0.68 | 2200 | 5.0 | 136.8 | 3.4 |
| 1N3710B | 200 | 0.65 | 2500 | 5.0 | 152.0 | 3 |

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