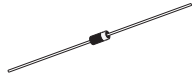


**C1Z3.3B THRU C1Z91B**  
**SILICON ZENER DIODE**  
**3.3 VOLTS THRU 91 VOLTS**  
**1.0 W, 5% TOLERANCE**



**DO-15 CASE**

# Central<sup>TM</sup>

## Semiconductor Corp.

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR C1Z3.3B Series Silicon Zener Diode is a high quality epoxy molded voltage regulator designed for use in industrial, commercial, entertainment and computer applications.

### MARKING: FULL PART NUMBER

### MAXIMUM RATINGS:

Power Dissipation ( $T_A=50^\circ\text{C}$ )  
 Operating and Storage Temperature

### SYMBOL

$P_D$  1.0  
 $T_J, T_{stg}$  -65 to +150

### UNITS

W  
 $^\circ\text{C}$

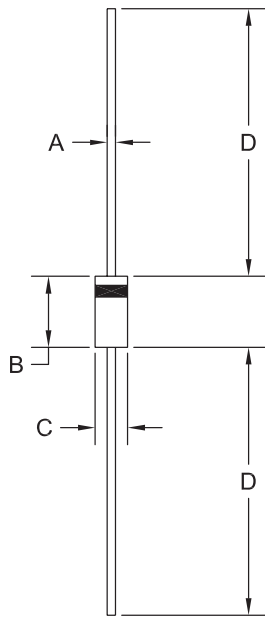
### ELECTRICAL CHARACTERISTICS: ( $T_A=25^\circ\text{C}$ ) $V_F=1.0\text{V MAX @ } I_F=500\text{mA}$ (for all types)

| Type    | Zener Voltage  |          |          | Test Current | Maximum Reverse Leakage Current |      |
|---------|----------------|----------|----------|--------------|---------------------------------|------|
|         | $V_Z @ I_{ZT}$ |          |          | $I_{ZT}$     | $I_R @ V_R$                     |      |
|         | MIN<br>V       | NOM<br>V | MAX<br>V | mA           | $\mu\text{A}$                   | V    |
| C1Z3.3B | 3.14           | 3.3      | 3.47     | 76           | 100                             | 1.0  |
| C1Z3.6B | 3.42           | 3.6      | 3.78     | 69           | 100                             | 1.0  |
| C1Z3.9B | 3.71           | 3.9      | 4.10     | 64           | 50                              | 1.0  |
| C1Z4.3B | 4.09           | 4.3      | 4.52     | 58           | 10                              | 1.0  |
| C1Z4.7B | 4.47           | 4.7      | 4.94     | 53           | 10                              | 1.0  |
| C1Z5.1B | 4.85           | 5.1      | 5.36     | 49           | 10                              | 1.0  |
| C1Z5.6B | 5.32           | 5.6      | 5.88     | 45           | 10                              | 2.0  |
| C1Z6.2B | 5.89           | 6.2      | 6.51     | 41           | 10                              | 3.0  |
| C1Z6.8B | 6.46           | 6.8      | 7.14     | 37           | 10                              | 4.0  |
| C1Z7.5B | 7.13           | 7.5      | 7.88     | 34           | 10                              | 5.0  |
| C1Z8.2B | 7.79           | 8.2      | 8.61     | 31           | 10                              | 6.0  |
| C1Z9.1B | 8.65           | 9.1      | 9.56     | 28           | 10                              | 7.0  |
| C1Z10B  | 9.50           | 10       | 10.50    | 25           | 10                              | 7.6  |
| C1Z11B  | 10.45          | 11       | 11.55    | 23           | 5.0                             | 8.4  |
| C1Z12B  | 11.40          | 12       | 12.60    | 21           | 5.0                             | 9.1  |
| C1Z13B  | 12.35          | 13       | 13.65    | 19           | 5.0                             | 9.9  |
| C1Z14B  | 13.30          | 14       | 14.70    | 18           | 5.0                             | 10.6 |
| C1Z15B  | 14.25          | 15       | 15.75    | 17           | 5.0                             | 11.4 |
| C1Z16B  | 15.20          | 16       | 16.80    | 15.5         | 5.0                             | 12.2 |
| C1Z17B  | 16.15          | 17       | 17.85    | 14.8         | 5.0                             | 12.9 |
| C1Z18B  | 17.10          | 18       | 18.90    | 14           | 5.0                             | 13.7 |
| C1Z19B  | 18.05          | 19       | 19.95    | 13.3         | 5.0                             | 14.4 |
| C1Z20B  | 19.00          | 20       | 21.00    | 12.5         | 5.0                             | 15.2 |
| C1Z22B  | 20.90          | 22       | 23.10    | 11.5         | 5.0                             | 16.7 |
| C1Z24B  | 22.80          | 24       | 25.20    | 10.5         | 5.0                             | 18.2 |
| C1Z25B  | 23.75          | 25       | 26.25    | 10.2         | 5.0                             | 19.0 |
| C1Z27B  | 25.65          | 27       | 28.35    | 9.5          | 5.0                             | 20.6 |

**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^\circ\text{C}$ )  $V_F=1.0\text{V MAX @ } I_F=500\text{mA}$  (for all types)

| Type   | Zener Voltage  |          |          | Test Current | Maximum Reverse Leakage Current |      |
|--------|----------------|----------|----------|--------------|---------------------------------|------|
|        | $V_Z @ I_{ZT}$ |          |          | $I_{ZT}$     | $I_R @ V_R$                     |      |
|        | MIN<br>V       | NOM<br>V | MAX<br>V | mA           | $\mu\text{A}$                   | V    |
| C1Z30B | 28.50          | 30       | 31.50    | 8.5          | 5.0                             | 22.8 |
| C1Z33B | 31.35          | 33       | 34.65    | 7.5          | 5.0                             | 25.1 |
| C1Z36B | 34.20          | 36       | 37.80    | 7.0          | 5.0                             | 27.4 |
| C1Z39B | 37.05          | 39       | 40.95    | 6.5          | 5.0                             | 29.7 |
| C1Z43B | 40.85          | 43       | 45.15    | 6.0          | 5.0                             | 32.7 |
| C1Z47B | 44.65          | 47       | 49.35    | 5.5          | 5.0                             | 35.8 |
| C1Z50B | 47.50          | 50       | 52.50    | 5.1          | 5.0                             | 37.3 |
| C1Z51B | 48.45          | 51       | 53.55    | 5.0          | 5.0                             | 38.8 |
| C1Z56B | 53.20          | 56       | 58.80    | 4.5          | 5.0                             | 42.6 |
| C1Z62B | 58.90          | 62       | 65.10    | 4.0          | 5.0                             | 47.1 |
| C1Z68B | 64.60          | 68       | 71.40    | 3.7          | 5.0                             | 51.7 |
| C1Z75B | 71.25          | 75       | 78.75    | 3.3          | 5.0                             | 56   |
| C1Z82B | 77.90          | 82       | 86.10    | 3.0          | 5.0                             | 62.2 |
| C1Z91B | 86.45          | 91       | 95.55    | 2.8          | 5.0                             | 69.2 |

**DO-15 CASE - MECHANICAL OUTLINE**



| SYMBOL | DIMENSIONS |       |             |      |
|--------|------------|-------|-------------|------|
|        | INCHES     |       | MILLIMETERS |      |
|        | MIN        | MAX   | MIN         | MAX  |
| A      | 0.028      | 0.034 | 0.71        | 0.86 |
| B      | 0.230      | 0.300 | 5.84        | 7.62 |
| C      | 0.104      | 0.140 | 2.64        | 3.56 |
| D      | 1.000      | -     | 25.40       | -    |

DO-15 (REV: R1)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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**Worldwide Distributors:**  
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