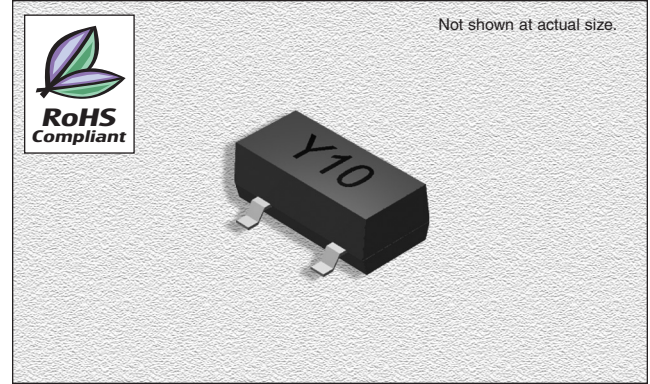


CTZ84C Series 2.4V ~ 39V

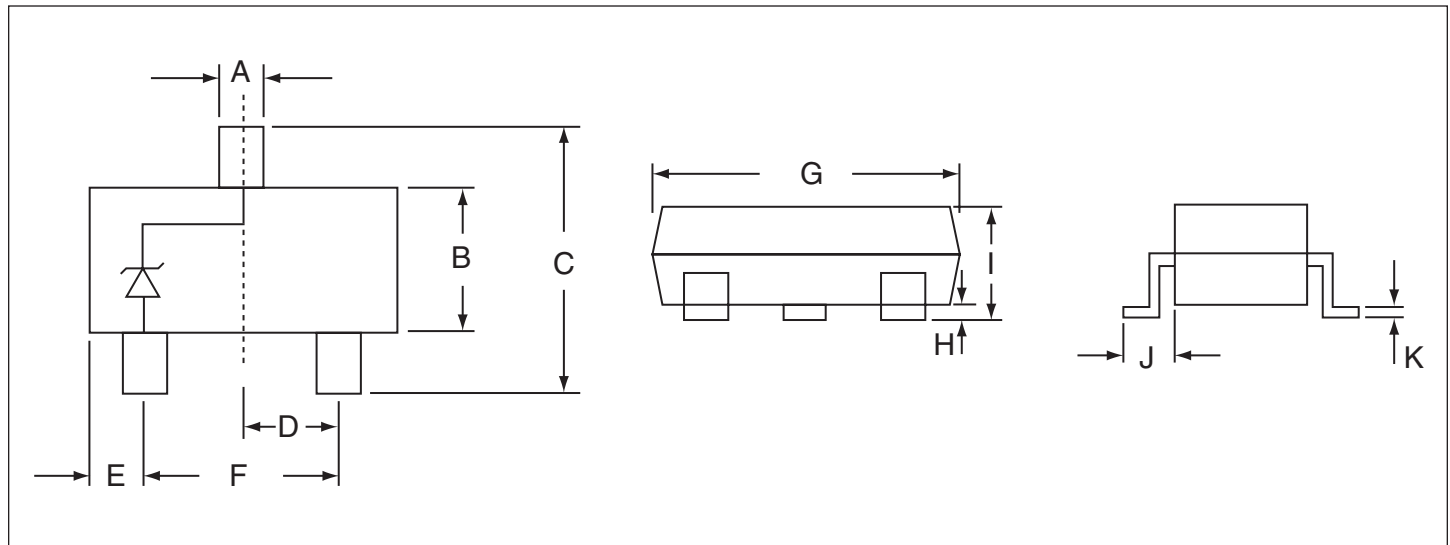


CHARACTERISTICS

Description: SOT-23 Plastic-Encapsulated Zener Diode
Features: Planar Die Construction. 350mW Power Dissipation. Zener Voltages from 2.4V ~ 39V. Ideally Suited for Automated Assembly Process.
Packaging: Tape & Reel
Miscellaneous: **RoHS Compliant**
Additional Information: Additional electrical & physical information available upon request
Samples available. See website for ordering information.

PHYSICAL DIMENSIONS (mm)

| Size | A | B | C | D | E | F | G | H | I | J | K |
|-------------|------|------|------|------|------|------|------|-------|------|------|-------|
| Min. | 0.37 | 1.19 | 2.10 | 0.89 | 0.45 | 1.78 | 2.65 | 0.013 | 0.89 | 0.45 | 0.076 |
| Max. | 0.51 | 1.40 | 2.50 | 1.05 | 0.61 | 2.05 | 3.05 | 0.015 | 1.10 | 0.61 | 0.178 |



Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristics | Symbol | Value | Unit |
|--|----------------|-------------|------------------|
| Forward Voltage @ $I_F = 10\text{mA}$ | V_F | 0.9 | V |
| Power Dissipation (Note 1) | P_d | 350 | mW |
| Thermal Resistance, Junction to Ambient Air (Note 1) | R_{thJA} | 357 | K/W |
| Operating and Storage Temp. Range | T_j, T_{STG} | -65 to +150 | $^\circ\text{C}$ |

Notes: 1. Valid provided that device terminals are kept at ambient temperature

04.30.07

CTZ84C Series

SPECIFICATIONS

| Part Number | Marking | Zener Voltage Range (Note 2) | | | | Maximum Zener Impedance (Note 3) | | | Maximum Reverse Current | | Temperature Coefficient of Zener Voltage@I _{ZT} -5Ma mV/°C | |
|-------------|---------|---------------------------------|----------|----------|-----------------|----------------------------------|----------------------------------|-----------------|-------------------------|----------------|--|------|
| | | V _Z @T _{ZT} | | | I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} | I _{ZK} | I _R | V _R | Min. | Max. |
| | | Nom. (V) | Min. (V) | Max. (V) | (mA) | (Ω) | | (mA) | (μA) | (V) | | |
| CTZ84C2V4 | Z11 | 2.4 | 2.2 | 2.6 | 5 | 100 | 600 | 1.0 | 50 | 1.0 | -3.5 | 0 |
| CTZ84C2V7 | Z12 | 2.7 | 2.5 | 2.9 | 5 | 100 | 600 | 1.0 | 20 | 1.0 | -3.5 | 0 |
| CTZ84C3V0 | Z13 | 3.0 | 2.8 | 3.2 | 5 | 95 | 600 | 1.0 | 10 | 1.0 | -3.5 | 0 |
| CTZ84C3V3 | Z14 | 3.3 | 3.1 | 3.5 | 5 | 95 | 600 | 1.0 | 5 | 1.0 | -3.5 | 0 |
| CTZ84C3V6 | Z15 | 3.6 | 3.4 | 3.8 | 5 | 90 | 600 | 1.0 | 5 | 1.0 | -3.5 | 0 |
| CTZ84C3V9 | Z16 | 3.9 | 3.7 | 4.1 | 5 | 90 | 600 | 1.0 | 3 | 1.0 | -3.5 | 0 |
| CTZ84C4V3 | Z17 | 4.3 | 4.0 | 4.6 | 5 | 90 | 600 | 1.0 | 3 | 1.0 | -3.5 | 0 |
| CTZ84C4V7 | Z1 | 4.7 | 4.4 | 5.0 | 5 | 80 | 500 | 1.0 | 3 | 2.0 | -3.5 | 0.2 |
| CTZ84C5V1 | Z2 | 5.1 | 4.8 | 5.4 | 5 | 60 | 480 | 1.0 | 2 | 2.0 | -2.7 | 1.2 |
| CTZ84C5V6 | Z3 | 5.6 | 5.2 | 6.0 | 5 | 40 | 400 | 1.0 | 1 | 2.0 | -2.0 | 2.5 |
| CTZ84C6V2 | Z4 | 6.2 | 5.8 | 6.6 | 5 | 10 | 150 | 1.0 | 3 | 4.0 | 0.4 | 3.7 |
| CTZ84C6V8 | Z5 | 6.8 | 6.4 | 7.2 | 5 | 15 | 80 | 1.0 | 2 | 4.0 | 1.2 | 4.5 |
| CTZ84C7V5 | Z6 | 7.5 | 7.0 | 7.9 | 5 | 15 | 80 | 1.0 | 1 | 5.0 | 2.5 | 5.3 |
| CTZ84C8V2 | Z7 | 8.2 | 7.7 | 8.7 | 5 | 15 | 80 | 1.0 | 0.7 | 5.0 | 3.2 | 6.2 |
| CTZ84C9V1 | Z8 | 9.1 | 8.5 | 9.6 | 5 | 15 | 100 | 1.0 | 0.5 | 6.0 | 3.8 | 7.0 |
| CTZ84C10 | Z9 | 10 | 9.4 | 10.6 | 5 | 20 | 150 | 1.0 | 0.2 | 7.0 | 4.5 | 8.0 |
| CTZ84C11 | Y1 | 11 | 10.4 | 11.6 | 5 | 20 | 150 | 1.0 | 0.1 | 8.0 | 5.4 | 9.0 |
| CTZ84C12 | Y2 | 12 | 11.4 | 12.7 | 5 | 25 | 150 | 1.0 | 0.1 | 8.0 | 6.0 | 10.0 |
| CTZ84C13 | Y3 | 13 | 12.4 | 14.1 | 5 | 30 | 170 | 1.0 | 0.1 | 8.0 | 7.0 | 11.0 |
| CTZ84C15 | Y4 | 15 | 13.8 | 15.6 | 5 | 30 | 200 | 1.0 | 0.1 | 10.5 | 9.2 | 13.0 |
| CTZ84C16 | Y5 | 16 | 15.3 | 17.1 | 5 | 40 | 200 | 1.0 | 0.1 | 11.2 | 10.4 | 14.0 |
| CTZ84C18 | Y6 | 18 | 16.8 | 19.1 | 5 | 45 | 225 | 1.0 | 0.1 | 12.6 | 12.4 | 16.0 |
| CTZ84C20 | Y7 | 20 | 18.8 | 21.2 | 5 | 55 | 225 | 1.0 | 0.1 | 14.0 | 14.4 | 18.0 |
| CTZ84C22 | Y8 | 22 | 20.8 | 23.3 | 5 | 55 | 250 | 1.0 | 0.1 | 15.4 | 16.4 | 20.0 |
| CTZ84C24 | Y9 | 24 | 22.8 | 25.6 | 5 | 70 | 250 | 1.0 | 0.1 | 16.8 | 18.4 | 22.0 |
| CTZ84C27 | Y10 | 27 | 25.1 | 28.9 | 2 | 80 | 300 | 0.5 | 0.1 | 18.9 | 21.4 | 25.3 |
| CTZ84C30 | Y11 | 30 | 28.0 | 32.0 | 2 | 80 | 300 | 0.5 | 0.1 | 21.0 | 24.4 | 29.4 |
| CTZ84C33 | Y12 | 33 | 31.0 | 35.0 | 2 | 80 | 325 | 0.5 | 0.1 | 23.1 | 27.4 | 33.4 |
| CTZ84C36 | Y13 | 36 | 34.0 | 38.0 | 2 | 90 | 350 | 0.5 | 0.1 | 25.2 | 30.4 | 37.4 |
| CTZ84C39 | Y14 | 39 | 37.0 | 41.0 | 2 | 130 | 350 | 0.5 | 0.1 | 27.3 | 33.4 | 41.2 |

Notes: 2. Tested with pulses 300μs pulse width, period = 5ms.

3. f = 1KHz

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Manufacturer of Passive and Discrete Semiconductor Components

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