

CZRW55C2V4 Thru 55C39

Voltage: 2.4 - 39 Volts
Power: 410 mWatts

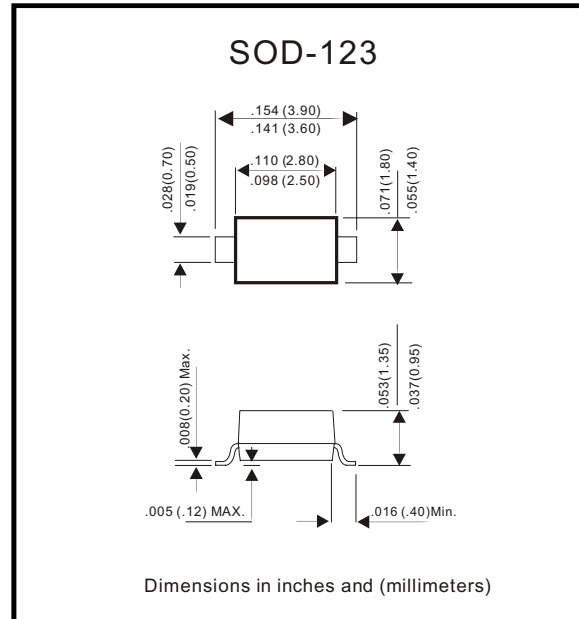


Features

- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes

Mechanical data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Approx. Weight: 0.008 gram



Maximum Ratings and Electrical Characteristics

| Parameter | Symbol | Value | Units |
|--|-----------|-------------|-------|
| Power Dissipation (Note A) at 25°C | P_D | 410 | mW |
| Peak Forward Surge Current Surge, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method) (Note B) | I_{FSM} | 2.0 | Amps |
| Operating Junction and Storage Temperature Range | T_J | -55 to +150 | °C |

NOTES:

- A. Mounted on 5.0mm²(.013mm thick) land areas.
- B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

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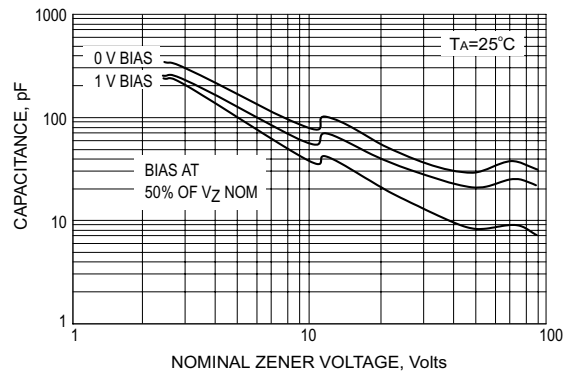
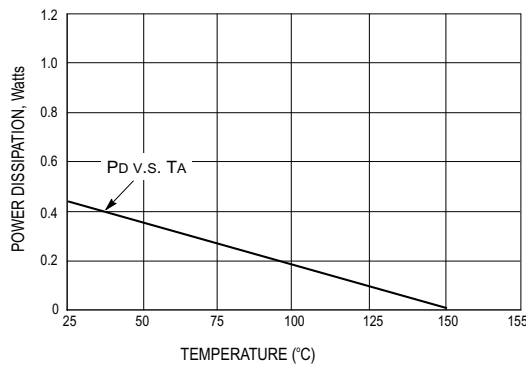
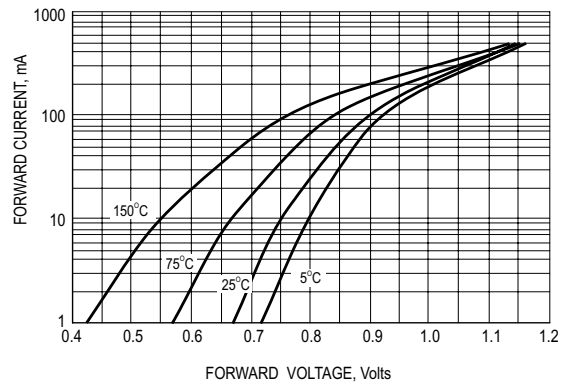
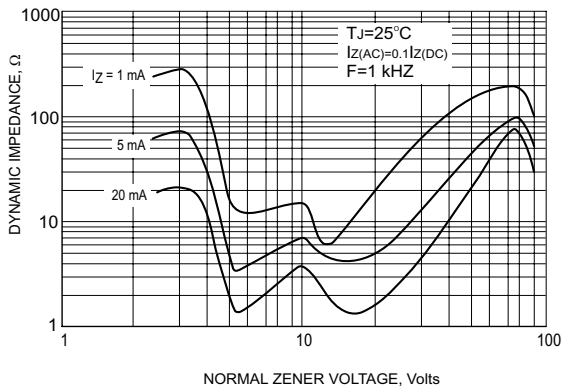
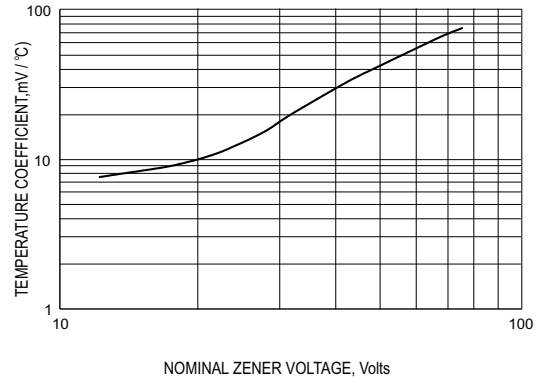
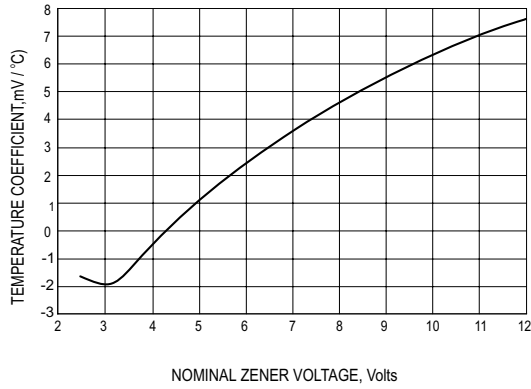
(TA=25°C unless otherwise noted) $V_F=1.2V$ max, $I_F=100mA$ for all types

| Part Number | Nominal Zener Voltage | | | Max. Zener Impedance | | | | Max Reverse Leakage Current | | Max Zener Current |
|--------------------------------|-----------------------|--------|--------|----------------------|----|-------------------|----|-----------------------------|------|-------------------|
| | $V_Z @ I_{ZT}$ | | | $Z_{ZT} @ I_{ZT}$ | | $Z_{ZK} @ I_{ZK}$ | | $I_R @ V_R$ | | $I_{ZM} @ T_A$ |
| | Nom. V | Min. V | Max. V | Ohm | mA | Ohm | mA | nA | V | mA |
| 410 mWatts Zener Diodes | | | | | | | | | | |
| CZRW55C2V4 | 2.4 | 2.28 | 2.56 | 85 | 5 | 600 | 1 | 100000 | 1 | - |
| CZRW55C2V7 | 2.7 | 2.5 | 2.9 | 83 | 5 | 500 | 1 | 75000 | 1 | 134 |
| CZRW55C3V0 | 3.0 | 2.8 | 3.2 | 95 | 5 | 500 | 1 | 50000 | 1 | 118 |
| CZRW55C3V3 | 3.3 | 3.1 | 3.5 | 95 | 5 | 500 | 1 | 25000 | 1 | 109 |
| CZRW55C3V6 | 3.6 | 3.4 | 3.8 | 95 | 5 | 500 | 1 | 15000 | 1 | 100 |
| CZRW55C3V9 | 3.9 | 3.7 | 4.1 | 95 | 5 | 500 | 1 | 10000 | 1 | 92 |
| CZRW55C4V3 | 4.3 | 4 | 4.6 | 95 | 5 | 500 | 1 | 5000 | 1 | 84 |
| CZRW55C4V7 | 4.7 | 4.4 | 5 | 78 | 5 | 500 | 1 | 5000 | 1 | 76 |
| CZRW55C5V1 | 5.1 | 4.8 | 5.4 | 60 | 5 | 480 | 1 | 100 | 0.8 | 67 |
| CZRW55C5V6 | 5.6 | 5.2 | 6 | 40 | 5 | 400 | 1 | 100 | 1 | 59 |
| CZRW55C6V2 | 6.2 | 5.8 | 6.6 | 10 | 5 | 200 | 1 | 100 | 2 | 54 |
| CZRW55C6V8 | 6.8 | 6.4 | 7.2 | 8 | 5 | 150 | 1 | 100 | 3 | 49 |
| CZRW55C7V5 | 7.5 | 7 | 7.9 | 7 | 5 | 50 | 1 | 100 | 5 | 44 |
| CZRW55C8V2 | 8.2 | 7.7 | 8.7 | 7 | 5 | 50 | 1 | 100 | 6 | 40 |
| CZRW55C9V1 | 9.1 | 8.5 | 9.6 | 10 | 5 | 50 | 1 | 100 | 7 | 36 |
| CZRW55C10 | 10.0 | 9.4 | 10.6 | 15 | 5 | 70 | 1 | 100 | 7.5 | 33 |
| CZRW55C11 | 11.0 | 10.4 | 11.6 | 20 | 5 | 70 | 1 | 100 | 8.5 | 30 |
| CZRW55C12 | 12.0 | 11.4 | 12.7 | 20 | 5 | 90 | 1 | 100 | 9 | 28 |
| CZRW55C13 | 13.0 | 12.4 | 14.1 | 25 | 5 | 110 | 1 | 100 | 10 | 25 |
| CZRW55C15 | 15 | 13.8 | 15.6 | 30 | 5 | 110 | 1 | 100 | 11 | 23 |
| CZRW55C16 | 16 | 15.3 | 17.1 | 40 | 5 | 170 | 1 | 100 | 12 | 20 |
| CZRW55C18 | 18 | 16.8 | 19.1 | 50 | 5 | 170 | 1 | 100 | 14 | 18 |
| CZRW55C20 | 20 | 18.8 | 21.2 | 50 | 5 | 220 | 1 | 100 | 15 | 17 |
| CZRW55C22 | 22 | 20.8 | 23.3 | 55 | 5 | 220 | 1 | 100 | 17 | 16 |
| CZRW55C24 | 24 | 22.8 | 25.6 | 80 | 5 | 220 | 1 | 100 | 18 | 13 |
| CZRW55C27 | 27 | 25.1 | 28.9 | 80 | 5 | 250 | 1 | 100 | 20 | 12 |
| CZRW55C30 | 30 | 28 | 32 | 80 | 5 | 250 | 1 | 100 | 22.5 | 10 |
| CZRW55C33 | 33 | 31 | 35 | 80 | 5 | 250 | 1 | 100 | 25 | 9 |
| CZRW55C36 | 36 | 34 | 38 | 90 | 5 | 250 | 1 | 100 | 27 | 9 |
| CZRW55C39 | 39 | 37 | 41 | 90 | 5 | 300 | 1 | 100 | 29 | 8 |

NOTE:

- Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- Specials Available Include:
 - Nominal zener voltages between the voltages shown and tighter voltage tolerances.
 - Matched sets.
- Zener Voltage (VZ) Measurement. Guarantees the zener voltage when measured at 90 seconds while maintaining the lead temperature (TL) at 300C, from the diode body.
- Zener Impedance (ZZ) Derivation. The zener impedance is derived from the 60 cycle ac voltage, which results when an AC current having an rms value equal to 10% of the dc zener current (IZT or IZK) is superimposed on IZT or IZK.
- Surge Current (IR) Non-Repetitive. The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, IZT, per JEDEC registration; however, actual device capability is as described in Figure 5.

Rating and Characteristic Curves (CZRW55C2V4 Thru CZRW55C39)



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