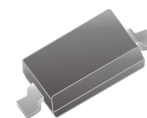


## CZRW55C2V4-G Thru CZRW55C43-G

Voltage: 2.4 to 43 Volts

Power: 200 mWatts

RoHS Device



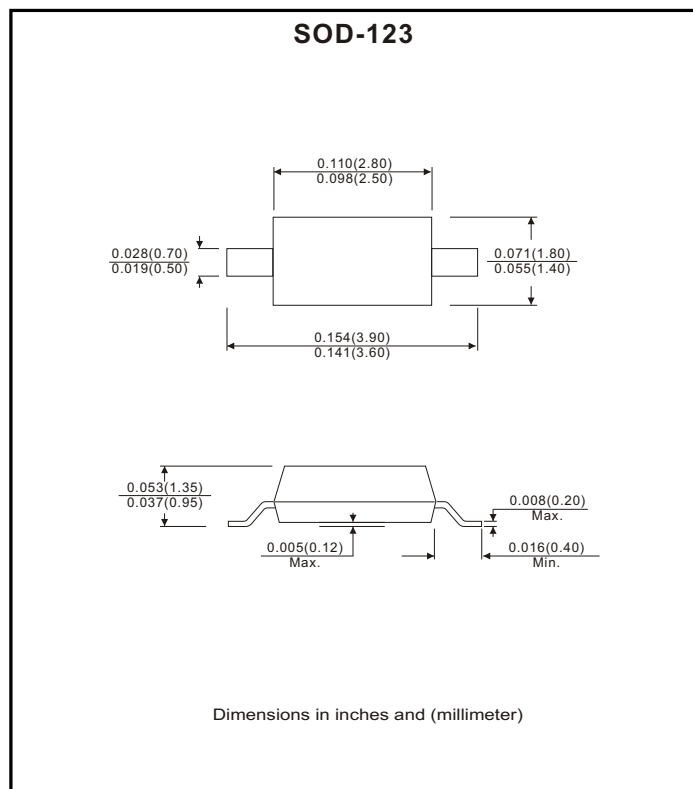
### Features

- Planar die construction.
- 500mW power dissipation.
- Ideally suited for automated assembly process.
- Ultra small surface mount package.

### Mechanical data

- Case: SOT-123 , Molded plastic
- Terminals: Solderable per MIL-STD-202G,method 208
- Polarity: Indicated by cathode band.
- Mounting position: Any

**Marking: see table on page2**



### Maximum Ratings (TA=25°C, unless otherwise specified)

| Parameter                                        | Symbol   | Value       | Unit |
|--------------------------------------------------|----------|-------------|------|
| Forward voltage at IF=10mA (Note 2)              | VF       | 0.9         | V    |
| Power dissipation (Note 1)                       | PD       | 500         | mW   |
| Thermal resistance, junction to ambient air      | RθJA     | 357         | °C/W |
| Operating junction and storage temperature range | TJ, TSTG | -65 to +150 | °C   |

Note:

1. Device mounted on ceramic PCB: 7.6mm×9.4mm×0.87mm with pad area 25mm<sup>2</sup>.
2. Short duration test pulse used to minimize self-heating effect.

## Electrical Characteristics(Ta = 25 °C)

| Part No.    | Nominal Zener Voltage |       |       | Max. Zener Impedence |     |           |      | Max. Reverse Leakage Current |      | Temperature Coefficient of Zener Voltage @IZT=5mA (mV/°C) |      | Marking Code |
|-------------|-----------------------|-------|-------|----------------------|-----|-----------|------|------------------------------|------|-----------------------------------------------------------|------|--------------|
|             | VZ @ IZT              |       |       | ZZT @ IZT            |     | ZZK @ IZK |      | IR @ VR                      |      |                                                           |      |              |
|             | Nom.                  | Min.  | Max.  | ohm                  | mA  | ohm       | mA   | uA                           | V    | Min.                                                      | Max. |              |
| CZRW 55C2V4 | 2.4                   | 2.20  | 2.60  | 100                  | 5.0 | 600       | 1.00 | 50.0                         | 1.0  | -3.5                                                      | 0.0  | WX           |
| CZRW 55C2V7 | 2.7                   | 2.50  | 2.90  | 100                  | 5.0 | 600       | 1.00 | 20.0                         | 1.0  | -3.5                                                      | 0.0  | W1           |
| CZRW 55C3V0 | 3.0                   | 2.80  | 3.20  | 95                   | 5.0 | 600       | 1.00 | 10.0                         | 1.0  | -3.5                                                      | 0.0  | W2           |
| CZRW 55C3V3 | 3.3                   | 3.10  | 3.50  | 95                   | 5.0 | 600       | 1.00 | 5.0                          | 1.0  | -3.5                                                      | 0.0  | W3           |
| CZRW 55C3V6 | 3.6                   | 3.40  | 3.80  | 90                   | 5.0 | 600       | 1.00 | 5.0                          | 1.0  | -3.5                                                      | 0.0  | W4           |
| CZRW 55C3V9 | 3.9                   | 3.70  | 4.10  | 90                   | 5.0 | 600       | 1.00 | 3.0                          | 1.0  | -3.5                                                      | 0.0  | W5           |
| CZRW 55C4V3 | 4.3                   | 4.00  | 4.60  | 90                   | 5.0 | 600       | 1.00 | 3.0                          | 1.0  | -3.5                                                      | 0.0  | W6           |
| CZRW 55C4V7 | 4.7                   | 4.40  | 5.00  | 80                   | 5.0 | 500       | 1.00 | 3.0                          | 2.0  | -3.5                                                      | 0.2  | W7           |
| CZRW 55C5V1 | 5.1                   | 4.80  | 5.40  | 60                   | 5.0 | 480       | 1.00 | 2.0                          | 2.0  | -2.7                                                      | 1.2  | W8           |
| CZRW 55C5V6 | 5.6                   | 5.20  | 6.00  | 40                   | 5.0 | 400       | 1.00 | 1.0                          | 2.0  | -2.0                                                      | 2.5  | W9           |
| CZRW 55C6V2 | 6.2                   | 5.80  | 6.60  | 10                   | 5.0 | 150       | 1.00 | 3.0                          | 4.0  | 0.4                                                       | 3.7  | WA           |
| CZRW 55C6V8 | 6.8                   | 6.40  | 7.20  | 15                   | 5.0 | 80        | 1.00 | 2.0                          | 4.0  | 1.2                                                       | 4.5  | WB           |
| CZRW 55C7V5 | 7.5                   | 7.00  | 7.90  | 15                   | 5.0 | 80        | 1.00 | 1.0                          | 5.0  | 2.5                                                       | 5.3  | WC           |
| CZRW 55C8v2 | 8.2                   | 7.70  | 8.70  | 15                   | 5.0 | 80        | 1.00 | 0.7                          | 5.0  | 3.2                                                       | 6.2  | WD           |
| CZRW 55C9v1 | 9.1                   | 8.50  | 9.60  | 15                   | 5.0 | 100       | 1.00 | 0.5                          | 6.0  | 3.8                                                       | 7.0  | WE           |
| CZRW 55C10  | 10.0                  | 9.40  | 10.60 | 20                   | 5.0 | 150       | 1.00 | 0.2                          | 7.0  | 4.5                                                       | 8.0  | WF           |
| CZRW 55C11  | 11.0                  | 10.40 | 11.60 | 20                   | 5.0 | 150       | 1.00 | 0.1                          | 8.0  | 5.4                                                       | 9.0  | WG           |
| CZRW 55C12  | 12.0                  | 11.40 | 12.70 | 25                   | 5.0 | 150       | 1.00 | 0.1                          | 8.0  | 6.0                                                       | 10.0 | WH           |
| CZRW 55C13  | 13.0                  | 12.40 | 14.10 | 30                   | 5.0 | 170       | 1.00 | 0.1                          | 8.0  | 7.0                                                       | 11.0 | WI           |
| CZRW 55C15  | 15.0                  | 13.80 | 15.60 | 30                   | 5.0 | 200       | 1.00 | 0.1                          | 10.5 | 9.2                                                       | 13.0 | WJ           |
| CZRW 55C16  | 16.0                  | 15.30 | 17.10 | 40                   | 5.0 | 200       | 1.00 | 0.1                          | 11.2 | 10.4                                                      | 14.0 | WK           |
| CZRW 55C18  | 18.0                  | 16.80 | 19.10 | 45                   | 5.0 | 225       | 1.00 | 0.1                          | 12.6 | 12.4                                                      | 16.0 | WL           |
| CZRW 55C20  | 20.0                  | 18.80 | 21.20 | 55                   | 5.0 | 225       | 1.00 | 0.1                          | 14.0 | 14.4                                                      | 18.0 | WM           |
| CZRW 55C22  | 22.0                  | 20.80 | 23.30 | 55                   | 5.0 | 250       | 1.00 | 0.1                          | 15.4 | 16.4                                                      | 20.0 | WN           |
| CZRW 55C24  | 24.0                  | 22.80 | 25.60 | 70                   | 5.0 | 250       | 1.00 | 0.1                          | 16.8 | 18.4                                                      | 22.0 | WO           |
| CZRW 55C27  | 27.0                  | 25.10 | 28.90 | 80                   | 2.0 | 300       | 0.50 | 0.1                          | 18.9 | 21.4                                                      | 25.3 | WP           |
| CZRW 55C30  | 30.0                  | 28.00 | 32.00 | 80                   | 2.0 | 300       | 0.50 | 0.1                          | 21.0 | 24.4                                                      | 29.4 | WQ           |
| CZRW 55C33  | 33.0                  | 31.00 | 35.00 | 80                   | 2.0 | 325       | 0.50 | 0.1                          | 23.1 | 27.4                                                      | 33.4 | WR           |
| CZRW 55C36  | 36.0                  | 34.00 | 38.00 | 90                   | 2.0 | 350       | 0.50 | 0.1                          | 25.2 | 30.4                                                      | 37.4 | WS           |
| CZRW 55C39  | 39.0                  | 37.00 | 41.00 | 130                  | 2.0 | 350       | 0.50 | 0.1                          | 27.3 | 33.4                                                      | 41.2 | WT           |
| CZRW 55C43  | 39.0                  | 40.00 | 41.00 | 100                  | 5.0 | 700       | 1.00 | 0.1                          | 32.0 | 10                                                        | 12.0 | WU           |

## Ratings and Characteristic Curves(CZRW55C2V4-G Thru. CZRW55C43-G)

Fig.1 Power Dissipation Derating Curve

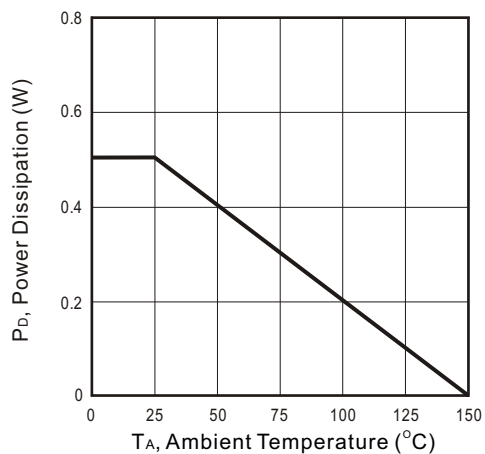


Fig.2 Zener Breakdown Characteristics

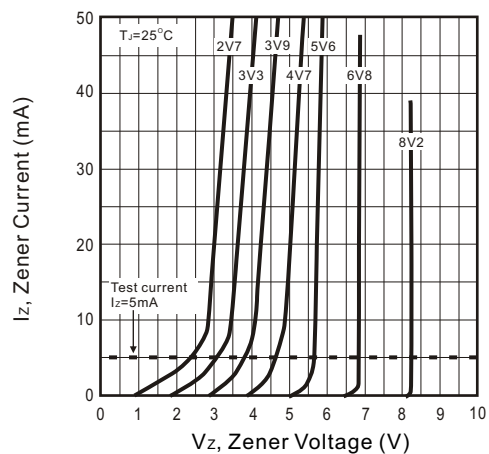


Fig.3 Zener Breakdown Characteristics

