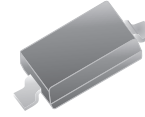


## CZRV5223B-G Thru. CZRV5256B-G

Voltage: 2.7 to 30 Volts

Power: 200 mWatts

RoHS Device

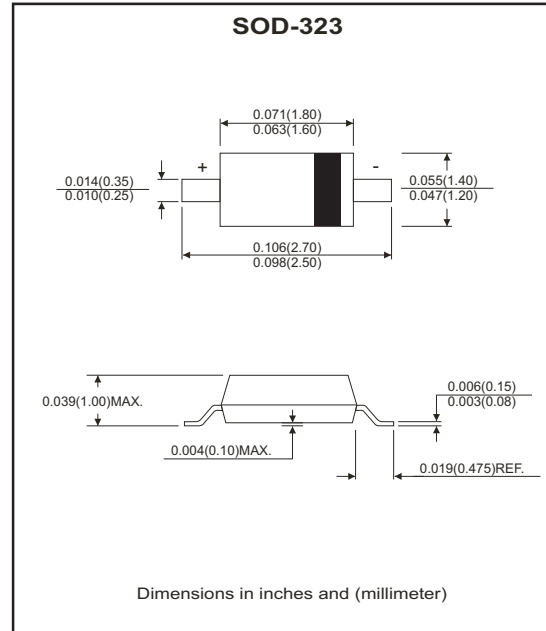


### Features

- For surface mounted applications.
- 200mW Power Dissipation.
- Ideally suited for automated assembly processes.
- Pb free product.

### Mechanical data

- Case: SOD-323, Molded plastic.
- Terminals: Solder Plated, solderable per MIL-STD-750, method 2026.
- Polarity: Cathode band.
- Weight: 0.008 gram (approx.).



### Maximum Rating AND Electrical Characteristics

| Parameter  | Symbol                            | Value       | Unit |
|--|-----------------------------------|-------------|------|
| Forward Voltage (Note 2) @ I <sub>F</sub> = 10mA | V <sub>F</sub>                    | 0.9         | V    |
| Power Dissipation (Note 1)                       | P <sub>d</sub>                    | 200         | mW   |
| Thermal Resistance, Junction to Ambient Air      | R <sub>θJA</sub>                  | 625         | °C/W |
| Operating Junction and Storage Temperature Range | T <sub>J</sub> , T <sub>STG</sub> | -65 to +150 | °C   |

Notes: 1. Device mounted on ceramic PCBs; 7.6mm\*9.4mm\*0.87mm with pad areas 25mm<sup>2</sup>

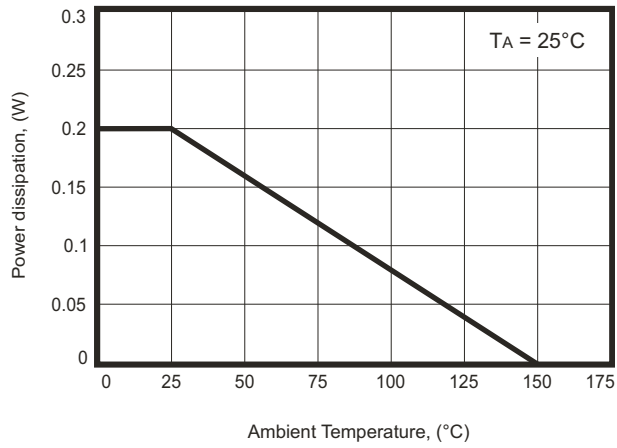
2. Tested with pulses, T<sub>p</sub> ≤ 1.0ms.

## Electrical Characteristics(@Ta = 25°C unless otherwise specified)

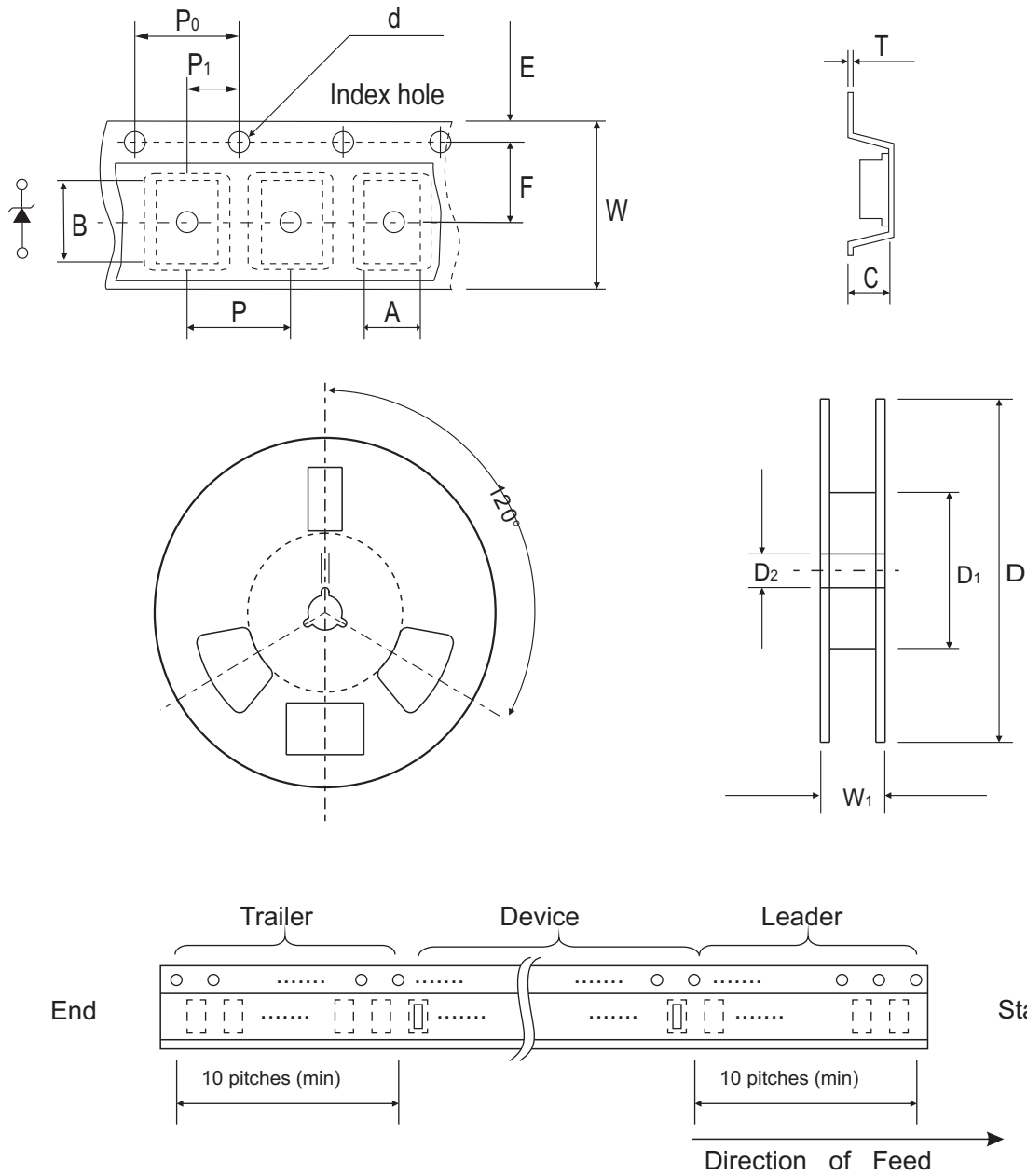
| Part Number | Zener Voltage |     |       | Operating resistance |         | Rising operating resistance |         | Reverse current |       | Marking Code |
|-------------|---------------|-----|-------|----------------------|---------|-----------------------------|---------|-----------------|-------|--------------|
|             | Vz(V)@IzT     |     |       | ZzT(Ohm)             |         | Zzk(Ohm)                    |         | IR(uA)          |       |              |
|             | Min           | Nom | Max   | Max                  | IzT(mA) | Max                         | Izk(mA) | Max             | VR(V) |              |
| CZRV5223B-G | 2.57          | 2.7 | 2.84  | 30                   | 20      | 1300                        | 0.25    | 75              | 1.0   | C3           |
| CZRV5225B-G | 2.85          | 3.0 | 3.15  | 30                   | 20      | 1600                        | 0.25    | 50              | 1.0   | C5           |
| CZRV5226B-G | 3.14          | 3.3 | 3.47  | 28                   | 20      | 1600                        | 0.25    | 25              | 1.0   | G1           |
| CZRV5227B-G | 3.42          | 3.6 | 3.78  | 24                   | 20      | 1700                        | 0.25    | 15              | 1.0   | G2           |
| CZRV5228B-G | 3.71          | 3.9 | 4.10  | 23                   | 20      | 1900                        | 0.25    | 10              | 1.0   | G3           |
| CZRV5229B-G | 4.09          | 4.3 | 4.52  | 22                   | 20      | 2000                        | 0.25    | 5.0             | 1.0   | G4           |
| CZRV5230B-G | 4.47          | 4.7 | 4.94  | 19                   | 20      | 1900                        | 0.25    | 5.0             | 2.0   | G5           |
| CZRV5231B-G | 4.85          | 5.1 | 5.36  | 17                   | 20      | 1600                        | 0.25    | 5.0             | 2.0   | E1           |
| CZRV5232B-G | 5.32          | 5.6 | 5.88  | 11                   | 20      | 1600                        | 0.25    | 5.0             | 3.0   | E2           |
| CZRV5233B-G | 5.70          | 6.0 | 6.30  | 7                    | 20      | 1600                        | 0.25    | 5.0             | 3.5   | E3           |
| CZRV5234B-G | 5.89          | 6.2 | 6.51  | 7                    | 20      | 1000                        | 0.25    | 5.0             | 4.0   | E4           |
| CZRV5235B-G | 6.46          | 6.8 | 7.14  | 5                    | 20      | 750                         | 0.25    | 3.0             | 5.0   | E5           |
| CZRV5236B-G | 7.13          | 7.5 | 7.88  | 6                    | 20      | 500                         | 0.25    | 3.0             | 6.0   | F1           |
| CZRV5237B-G | 7.79          | 8.2 | 8.61  | 8                    | 20      | 500                         | 0.25    | 3.0             | 6.5   | F2           |
| CZRV5238B-G | 8.27          | 8.7 | 9.14  | 8                    | 20      | 600                         | 0.25    | 3.0             | 6.5   | F3           |
| CZRV5239B-G | 8.65          | 9.1 | 9.56  | 10                   | 20      | 600                         | 0.25    | 3.0             | 7.0   | F4           |
| CZRV5240B-G | 9.50          | 10  | 10.50 | 17                   | 20      | 600                         | 0.25    | 3.0             | 8.0   | F5           |
| CZRV5241B-G | 10.45         | 11  | 11.55 | 22                   | 20      | 600                         | 0.25    | 2.0             | 8.4   | H1           |
| CZRV5242B-G | 11.40         | 12  | 12.60 | 30                   | 20      | 600                         | 0.25    | 1.0             | 9.1   | H2           |
| CZRV5243B-G | 12.35         | 13  | 13.65 | 13                   | 9.5     | 600                         | 0.25    | 0.5             | 9.9   | H3           |
| CZRV5244B-G | 13.30         | 14  | 14.70 | 15                   | 9.0     | 600                         | 0.25    | 0.1             | 10.0  | H4           |
| CZRV5245B-G | 14.25         | 15  | 15.75 | 16                   | 8.5     | 600                         | 0.25    | 0.1             | 11.0  | H5           |
| CZRV5246B-G | 15.20         | 16  | 16.80 | 17                   | 7.8     | 600                         | 0.25    | 0.1             | 12.0  | J1           |
| CZRV5248B-G | 17.10         | 18  | 18.90 | 21                   | 7.0     | 600                         | 0.25    | 0.1             | 14.0  | J3           |
| CZRV5250B-G | 19.00         | 20  | 21.00 | 25                   | 6.2     | 600                         | 0.25    | 0.1             | 15.0  | J5           |
| CZRV5251B-G | 20.90         | 22  | 23.10 | 29                   | 5.6     | 600                         | 0.25    | 0.1             | 17.0  | K1           |
| CZRV5252B-G | 22.80         | 24  | 25.20 | 33                   | 5.2     | 600                         | 0.25    | 0.1             | 18.0  | K2           |
| CZRV5253B-G | 23.75         | 25  | 26.25 | 35                   | 5.0     | 600                         | 0.25    | 0.1             | 19.0  | K3           |
| CZRV5254B-G | 25.65         | 27  | 28.35 | 41                   | 5.0     | 600                         | 0.25    | 0.1             | 21.0  | K4           |
| CZRV5255B-G | 26.60         | 28  | 29.40 | 44                   | 4.5     | 600                         | 0.25    | 0.1             | 21.0  | K5           |
| CZRV5256B-G | 28.50         | 30  | 31.50 | 49                   | 4.2     | 600                         | 0.25    | 0.1             | 23.0  | M1           |

## RATING AND CHARACTERISTIC CURVES (CZRV5223B-G Thru CZRV5256B-G)

Fig.1- Power Derating VS Ambient Temperature



## Reel Taping Specification



| SOD-323 | SYMBOL | A             | B             | C             | d             | D             | D1            | D2            |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|         | (mm)   | 1.46 ± 0.10   | 2.90 ± 0.10   | 1.25 ± 0.10   | 1.50 ± 0.10   | 178 ± 1.00    | 54.40 ± 0.40  | 13.0 ± 0.20   |
|         | (inch) | 0.058 ± 0.004 | 0.114 ± 0.004 | 0.049 ± 0.004 | 0.059 ± 0.004 | 7.008 ± 0.039 | 2.142 ± 0.016 | 0.512 ± 0.008 |

| SOD-323 | SYMBOL | E             | F             | P             | P0            | P1            | W                       | W1            |
|---------|--------|---------------|---------------|---------------|---------------|---------------|-------------------------|---------------|
|         | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.05   | 4.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.10   | 8.00 + 0.30 / - 0.10    | 9.50 ± 1.00   |
|         | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.158 ± 0.004 | 0.158 ± 0.004 | 0.079 ± 0.004 | 0.315 + 0.011 / - 0.004 | 0.374 ± 0.039 |