

## 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)                    |         | I <sub>R</sub> (uA) |                    |              |
|             | Min           | Nom | Max   | Max                  | IzT(mA) | Max                         | Izk(mA) | Max                 | V <sub>R</sub> (V) |              |
| CZRW5223B-G | 2.57          | 2.7 | 2.84  | 30                   | 20      | 1300                        | 0.25    | 75                  | 1.0                | C3           |
| CZRW5225B-G | 2.85          | 3.0 | 3.15  | 30                   | 20      | 1600                        | 0.25    | 50                  | 1.0                | C5           |
| CZRW5226B-G | 3.14          | 3.3 | 3.47  | 28                   | 20      | 1600                        | 0.25    | 25                  | 1.0                | G1           |
| CZRW5227B-G | 3.42          | 3.6 | 3.78  | 24                   | 20      | 1700                        | 0.25    | 15                  | 1.0                | G2           |
| CZRW5228B-G | 3.71          | 3.9 | 4.10  | 23                   | 20      | 1900                        | 0.25    | 10                  | 1.0                | G3           |
| CZRW5229B-G | 4.09          | 4.3 | 4.52  | 22                   | 20      | 2000                        | 0.25    | 5                   | 1.0                | G4           |
| CZRW5230B-G | 4.47          | 4.7 | 4.94  | 19                   | 20      | 1900                        | 0.25    | 5                   | 2.0                | G5           |
| CZRW5231B-G | 4.85          | 5.1 | 5.36  | 17                   | 20      | 1600                        | 0.25    | 5                   | 2.0                | E1           |
| CZRW5232B-G | 5.32          | 5.6 | 5.88  | 11                   | 20      | 1600                        | 0.25    | 5                   | 3.0                | E2           |
| CZRW5233B-G | 5.70          | 6.0 | 6.30  | 7                    | 20      | 1600                        | 0.25    | 5                   | 3.5                | E3           |
| CZRW5234B-G | 5.89          | 6.2 | 6.51  | 7                    | 20      | 1000                        | 0.25    | 5                   | 4.0                | E4           |
| CZRW5235B-G | 6.46          | 6.8 | 7.14  | 5                    | 20      | 750                         | 0.25    | 3                   | 5.0                | E5           |
| CZRW5236B-G | 7.13          | 7.5 | 7.88  | 6                    | 20      | 500                         | 0.25    | 3                   | 6.0                | F1           |
| CZRW5237B-G | 7.79          | 8.2 | 8.61  | 8                    | 20      | 500                         | 0.25    | 3                   | 6.5                | F2           |
| CZRW5238B-G | 8.27          | 8.7 | 9.14  | 8                    | 20      | 600                         | 0.25    | 3                   | 6.5                | F3           |
| CZRW5239B-G | 8.65          | 9.1 | 9.56  | 10                   | 20      | 600                         | 0.25    | 3                   | 7.0                | F4           |
| CZRW5240B-G | 9.50          | 10  | 10.50 | 17                   | 20      | 600                         | 0.25    | 3                   | 8.0                | F5           |
| CZRW5241B-G | 10.45         | 11  | 11.55 | 22                   | 20      | 600                         | 0.25    | 2                   | 8.4                | H1           |
| CZRW5242B-G | 11.40         | 12  | 12.60 | 30                   | 20      | 600                         | 0.25    | 1                   | 9.1                | H2           |
| CZRW5243B-G | 12.35         | 13  | 13.65 | 13                   | 9.5     | 600                         | 0.25    | 0.5                 | 9.9                | H3           |
| CZRW5244B-G | 13.30         | 14  | 14.70 | 15                   | 9.0     | 600                         | 0.25    | 0.1                 | 10                 | H4           |
| CZRW5245B-G | 14.25         | 15  | 15.75 | 16                   | 8.5     | 600                         | 0.25    | 0.1                 | 11                 | H5           |
| CZRW5246B-G | 15.20         | 16  | 16.80 | 17                   | 7.8     | 600                         | 0.25    | 0.1                 | 12                 | J1           |
| CZRW5248B-G | 17.10         | 18  | 18.90 | 21                   | 7.0     | 600                         | 0.25    | 0.1                 | 14                 | J3           |
| CZRW5250B-G | 19.00         | 20  | 21.00 | 25                   | 6.2     | 600                         | 0.25    | 0.1                 | 15                 | J5           |
| CZRW5251B-G | 20.90         | 22  | 23.10 | 29                   | 5.6     | 600                         | 0.25    | 0.1                 | 17                 | K1           |
| CZRW5252B-G | 22.80         | 24  | 25.20 | 33                   | 5.2     | 600                         | 0.25    | 0.1                 | 18                 | K2           |
| CZRW5253B-G | 23.75         | 25  | 26.25 | 35                   | 5.0     | 600                         | 0.25    | 0.1                 | 19                 | K3           |
| CZRW5254B-G | 25.65         | 27  | 28.35 | 41                   | 5.0     | 600                         | 0.25    | 0.1                 | 21                 | K4           |
| CZRW5255B-G | 26.60         | 28  | 29.40 | 44                   | 4.5     | 600                         | 0.25    | 0.1                 | 21                 | K5           |
| CZRW5256B-G | 28.50         | 30  | 31.50 | 49                   | 4.2     | 600                         | 0.25    | 0.1                 | 23                 | M1           |

RATING AND CHARACTERISTIC CURVES (CZRW5223B-G Thru CZRW5256B-G)

Fig.1 - Power Derating Curve

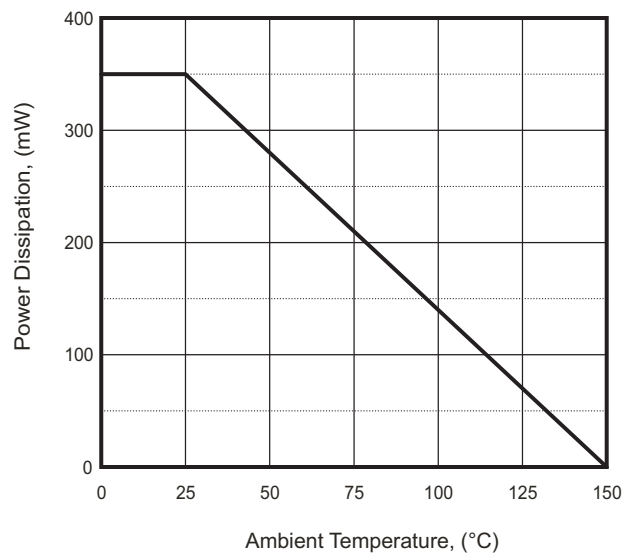


Fig.2 - Forward Characteristics

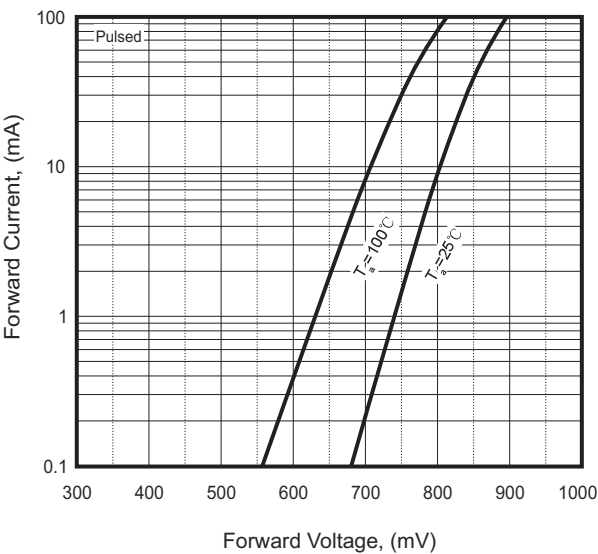


Fig.3 - Reverse Characteristics

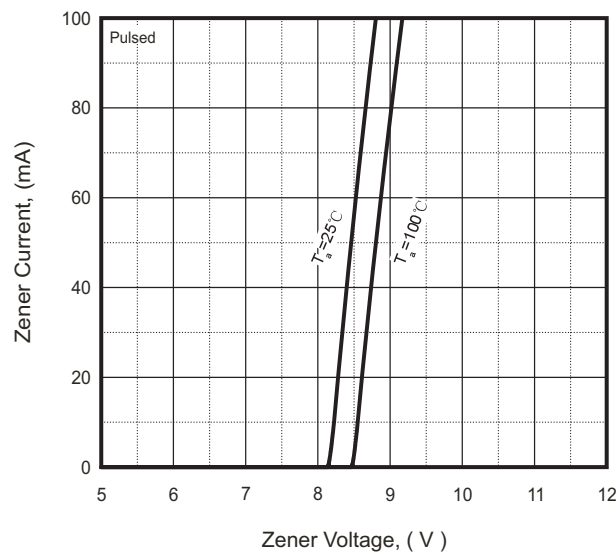
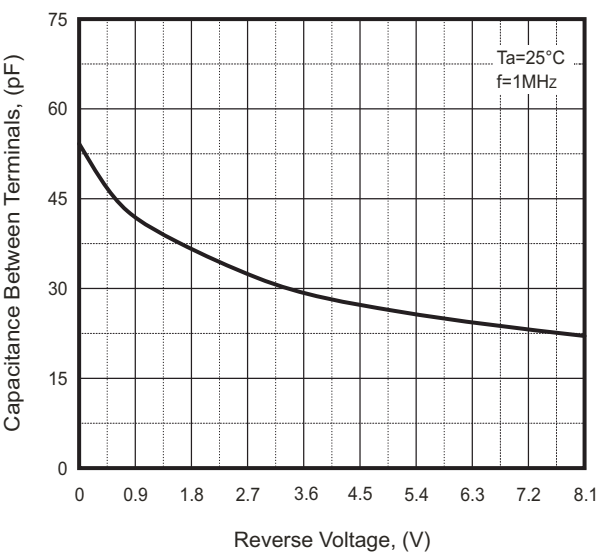
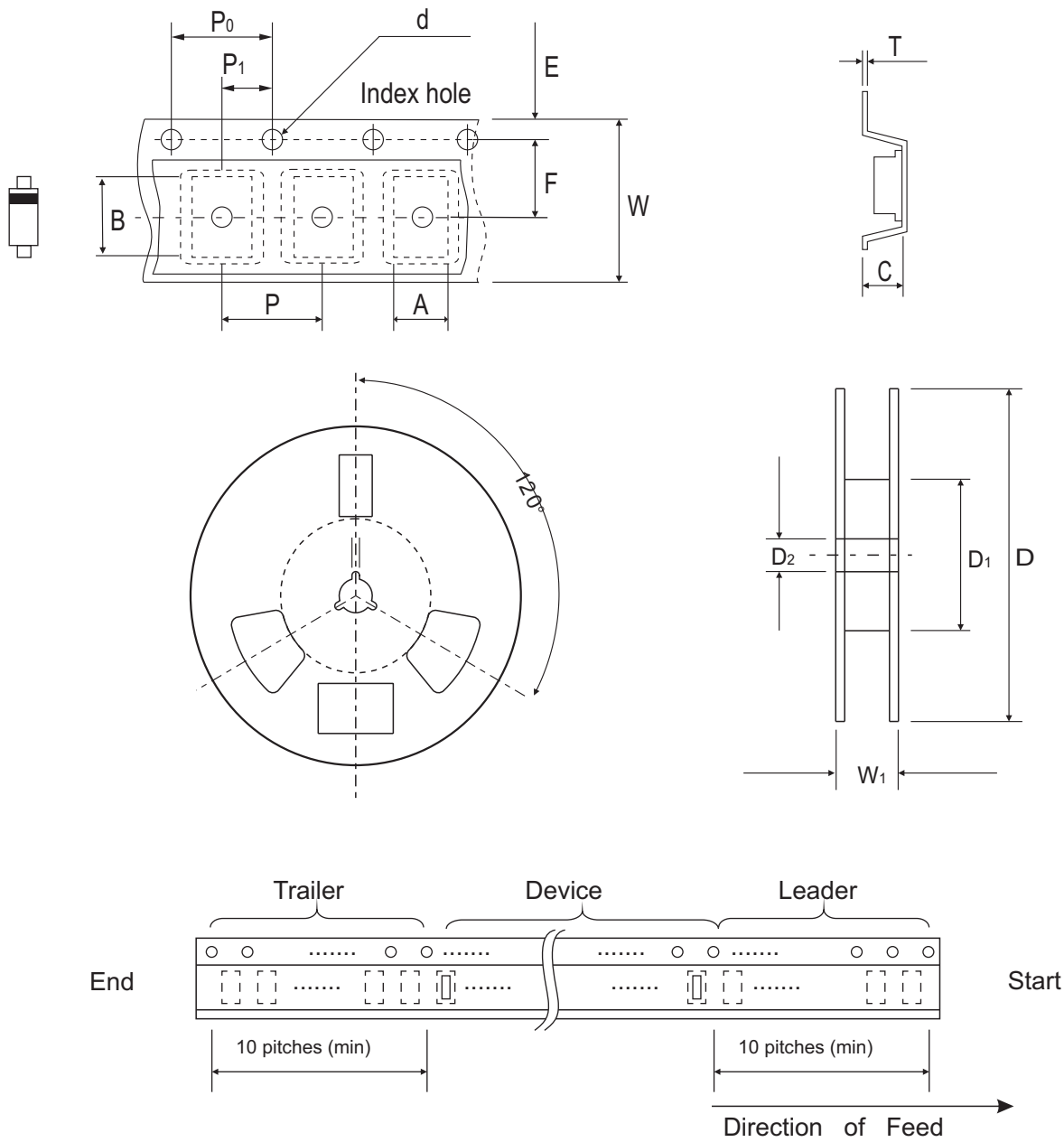


Fig.4 - Capacitance Characteristics



## Reel Taping Specification



| SOD-123 | SYMBOL | A                 | B                 | C                 | d                 | D                 | D1                | D2                |
|---------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|         | (mm)   | $1.85 \pm 0.10$   | $3.94 \pm 0.10$   | $1.57 \pm 0.10$   | $1.55 \pm 0.10$   | $178 \pm 1.00$    | $54.40 \pm 0.40$  | $13.0 \pm 0.20$   |
|         | (inch) | $0.073 \pm 0.004$ | $0.155 \pm 0.004$ | $0.062 \pm 0.004$ | $0.061 \pm 0.004$ | $7.008 \pm 0.039$ | $2.142 \pm 0.016$ | $0.512 \pm 0.008$ |

| SOD-123 | SYMBOL | E                 | F                 | P                 | P0                | P1                | W                        | W1                |
|---------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------------|-------------------|
|         | (mm)   | $1.75 \pm 0.10$   | $3.50 \pm 0.05$   | $4.00 \pm 0.10$   | $4.00 \pm 0.10$   | $2.00 \pm 0.10$   | $8.00 \pm 0.30/-0.10$    | $9.50 \pm 1.00$   |
|         | (inch) | $0.069 \pm 0.004$ | $0.138 \pm 0.002$ | $0.158 \pm 0.004$ | $0.158 \pm 0.004$ | $0.079 \pm 0.004$ | $0.315 \pm 0.012/-0.004$ | $0.374 \pm 0.039$ |

## Marking Code

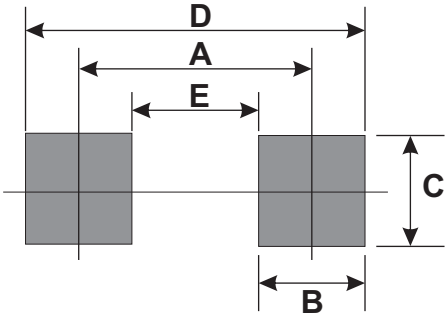
| Part Number               | Marking Code |
|---------------------------|--------------|
| CZRW5223B-G ~ CZRW5256B-G | XX           |



Product type marking code (see page.2)

## Suggested PAD Layout

| SIZE | SOD-123 |        |
|------|---------|--------|
|      | (mm)    | (inch) |
| A    | 3.35    | 0.132  |
| B    | 0.80    | 0.031  |
| C    | 1.00    | 0.039  |
| D    | 4.15    | 0.163  |
| E    | 2.55    | 0.100  |



## Standard Packaging

| Case Type | REEL PACK       |                     |
|-----------|-----------------|---------------------|
|           | REEL<br>( pcs ) | Reel Size<br>(inch) |
| SOD-123   | 3,000           | 7                   |