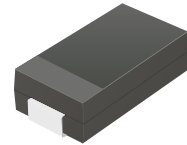


## CZRC5340B-G Thru CZRC5388B-G

Voltage: 6.0 to 200 Volts

Power: 5 Watts

RoHS Device

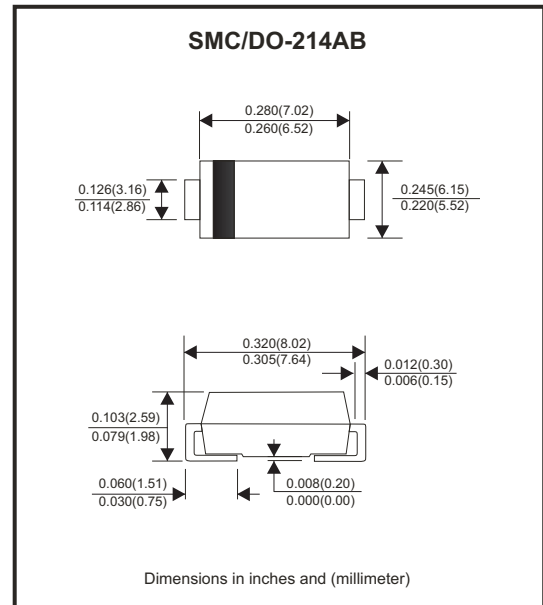


### Features

- Glass passivated chip.
- Low leakage.
- Built-in strain relief.
- Low inductance.
- High peak reverse power dissipation.
- For use in stabilizing and clipping with high power rating.

### Mechanical data

- Case: DO-214AB(SMC), Molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: Solderable per MIL-STD-750, method 2026 guaranteed.
- Polarity: Color band denotes cathode.
- Mounting position: Any.
- Weight: 0.21 grams(approx.).



### Circuit diagram



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

| Parameter   | Symbol           | Value       | Unit |
|---|------------------|-------------|------|
| DC power dissipation at T <sub>L</sub> = 75°C (Note1) | P <sub>D</sub>   | 5           | W    |
| Maximum forward voltage at I <sub>F</sub> =1A         | V <sub>F</sub>   | 1.2         | V    |
| Junction temperature range                            | T <sub>J</sub>   | -55 to +150 | °C   |
| Storage temperature range                             | T <sub>STG</sub> | -55 to +150 | °C   |

Note:

(1) T<sub>L</sub> = Lead temperature at 3/8" (9.5mm) from body.

## Electrical Characteristics (at TA=25°C unless otherwise specified)

| Part Number | Nominal Zener Voltage |      | Maximum Zener Impedance |           |      | Maximum Reverse Leakage Current |      | Maximum DC Zener Current | Marking Code |
|-------------|-----------------------|------|-------------------------|-----------|------|---------------------------------|------|--------------------------|--------------|
|             | Vz @ IzT              | IzT  | ZzT @ IzT               | Zzk @ Izk | Izk  | Ir @ Vr                         |      | IzM                      |              |
|             | (V)                   | (mA) | (Ohm)                   | (Ohm)     | (mA) | (uA)                            | (V)  | (mA)                     |              |
| CZRC5340B-G | 6.0                   | 200  | 1.0                     | 300       | 1    | 1.0                             | 3.0  | 790.0                    | 340B         |
| CZRC5341B-G | 6.2                   | 200  | 1.0                     | 200       | 1    | 1.0                             | 3.0  | 765.0                    | 341B         |
| CZRC5342B-G | 6.8                   | 175  | 1.0                     | 200       | 1    | 10.0                            | 5.2  | 700.0                    | 342B         |
| CZRC5343B-G | 7.5                   | 175  | 1.5                     | 200       | 1    | 10.0                            | 5.7  | 630.0                    | 343B         |
| CZRC5344B-G | 8.2                   | 150  | 1.5                     | 200       | 1    | 10.0                            | 6.2  | 580.0                    | 344B         |
| CZRC5345B-G | 8.7                   | 150  | 2.0                     | 200       | 1    | 10.0                            | 6.6  | 545.0                    | 345B         |
| CZRC5346B-G | 9.1                   | 150  | 2.0                     | 150       | 1    | 7.5                             | 6.9  | 520.0                    | 346B         |
| CZRC5347B-G | 10.0                  | 125  | 2.0                     | 125       | 1    | 5.0                             | 7.6  | 475.0                    | 347B         |
| CZRC5348B-G | 11.0                  | 125  | 2.5                     | 125       | 1    | 5.0                             | 8.4  | 430.0                    | 348B         |
| CZRC5349B-G | 12.0                  | 100  | 2.5                     | 125       | 1    | 2.0                             | 9.1  | 395.0                    | 349B         |
| CZRC5350B-G | 13.0                  | 100  | 2.5                     | 100       | 1    | 1.0                             | 9.9  | 365.0                    | 350B         |
| CZRC5351B-G | 14.0                  | 100  | 2.5                     | 75        | 1    | 1.0                             | 10.6 | 340.0                    | 351B         |
| CZRC5352B-G | 15.0                  | 75   | 2.5                     | 75        | 1    | 1.0                             | 11.5 | 315.0                    | 352B         |
| CZRC5353B-G | 16.0                  | 75   | 2.5                     | 75        | 1    | 1.0                             | 12.2 | 295.0                    | 353B         |
| CZRC5354B-G | 17.0                  | 70   | 2.5                     | 75        | 1    | 0.5                             | 12.9 | 280.0                    | 354B         |
| CZRC5355B-G | 18.0                  | 65   | 2.5                     | 75        | 1    | 0.5                             | 13.7 | 265.0                    | 355B         |
| CZRC5356B-G | 19.0                  | 65   | 3.0                     | 75        | 1    | 0.5                             | 14.4 | 250.0                    | 356B         |
| CZRC5357B-G | 20.0                  | 65   | 3.0                     | 75        | 1    | 0.5                             | 15.2 | 237.0                    | 357B         |
| CZRC5358B-G | 22.0                  | 50   | 3.5                     | 75        | 1    | 0.5                             | 16.7 | 216.0                    | 358B         |
| CZRC5359B-G | 24.0                  | 50   | 3.5                     | 100       | 1    | 0.5                             | 18.2 | 198.0                    | 359B         |
| CZRC5360B-G | 25.0                  | 50   | 4.0                     | 110       | 1    | 0.5                             | 19.0 | 190.0                    | 360B         |
| CZRC5361B-G | 27.0                  | 50   | 5.0                     | 120       | 1    | 0.5                             | 20.6 | 176.0                    | 361B         |
| CZRC5362B-G | 28.0                  | 50   | 6.0                     | 130       | 1    | 0.5                             | 21.2 | 170.0                    | 362B         |
| CZRC5363B-G | 30.0                  | 40   | 8.0                     | 140       | 1    | 0.5                             | 22.8 | 158.0                    | 363B         |
| CZRC5364B-G | 33.0                  | 40   | 10.0                    | 150       | 1    | 0.5                             | 25.1 | 144.0                    | 364B         |
| CZRC5365B-G | 36.0                  | 30   | 11.0                    | 160       | 1    | 0.5                             | 27.4 | 132.0                    | 365B         |
| CZRC5366B-G | 39.0                  | 30   | 14.0                    | 170       | 1    | 0.5                             | 29.7 | 122.0                    | 366B         |
| CZRC5367B-G | 43.0                  | 30   | 20.0                    | 190       | 1    | 0.5                             | 32.7 | 110.0                    | 367B         |
| CZRC5368B-G | 47.0                  | 25   | 25.0                    | 210       | 1    | 0.5                             | 35.8 | 100.0                    | 368B         |
| CZRC5369B-G | 51.0                  | 25   | 27.0                    | 230       | 1    | 0.5                             | 38.8 | 93.0                     | 369B         |
| CZRC5370B-G | 56.0                  | 20   | 35.0                    | 280       | 1    | 0.5                             | 42.6 | 86.0                     | 370B         |
| CZRC5371B-G | 60.0                  | 20   | 40.0                    | 350       | 1    | 0.5                             | 45.5 | 79.0                     | 371B         |
| CZRC5372B-G | 62.0                  | 20   | 42.0                    | 400       | 1    | 0.5                             | 47.1 | 76.0                     | 372B         |
| CZRC5373B-G | 68.0                  | 20   | 44.0                    | 500       | 1    | 0.5                             | 51.7 | 70.0                     | 373B         |
| CZRC5374B-G | 75.0                  | 20   | 45.0                    | 620       | 1    | 0.5                             | 56.0 | 63.0                     | 374B         |
| CZRC5375B-G | 82.0                  | 15   | 65.0                    | 720       | 1    | 0.5                             | 62.2 | 58.0                     | 375B         |
| CZRC5376B-G | 87.0                  | 15   | 75.0                    | 760       | 1    | 0.5                             | 66.0 | 54.5                     | 376B         |
| CZRC5377B-G | 91.0                  | 15   | 75.0                    | 760       | 1    | 0.5                             | 69.2 | 52.5                     | 377B         |

**Notes:**

- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IzT per JEDEC Method.

## Electrical Characteristics (at TA=25°C unless otherwise specified)

| Part Number | Nominal Zener Voltage |      | Maximum Zener Impedance |           |      | Maximum Reverse Leakage Current |       | Maximum DC Zener Current | Marking Code |
|-------------|-----------------------|------|-------------------------|-----------|------|---------------------------------|-------|--------------------------|--------------|
|             | Vz @ IzT              | IzT  | ZzT @ IzT               | Zzk @ IzK | IzK  | Ir @ VR                         |       | IzM                      |              |
|             | (V)                   | (mA) | (Ohm)                   | (Ohm)     | (mA) | (uA)                            | (V)   | (mA)                     |              |
| CZRC5378B-G | 100.0                 | 12   | 90.0                    | 800       | 1    | 0.5                             | 76.0  | 47.5                     | 378B         |
| CZRC5379B-G | 110.0                 | 12   | 125.0                   | 1000      | 1    | 0.5                             | 83.6  | 43.0                     | 379B         |
| CZRC5380B-G | 120.0                 | 10   | 170.0                   | 1150      | 1    | 0.5                             | 91.2  | 39.5                     | 380B         |
| CZRC5381B-G | 130.0                 | 10   | 190.0                   | 1250      | 1    | 0.5                             | 98.8  | 36.6                     | 381B         |
| CZRC5382B-G | 140.0                 | 8    | 230.0                   | 1500      | 1    | 0.5                             | 106.0 | 34.0                     | 382B         |
| CZRC5383B-G | 150.0                 | 8    | 330.0                   | 1500      | 1    | 0.5                             | 114.0 | 31.6                     | 383B         |
| CZRC5384B-G | 160.0                 | 8    | 335.0                   | 1650      | 1    | 0.5                             | 122.0 | 29.4                     | 384B         |
| CZRC5385B-G | 170.0                 | 8    | 380.0                   | 1750      | 1    | 0.5                             | 129.0 | 28.0                     | 385B         |
| CZRC5386B-G | 180.0                 | 5    | 430.0                   | 1750      | 1    | 0.5                             | 137.0 | 26.4                     | 386B         |
| CZRC5387B-G | 190.0                 | 5    | 450.0                   | 1850      | 1    | 0.5                             | 144.0 | 25.0                     | 387B         |
| CZRC5388B-G | 200.0                 | 5    | 480.0                   | 1850      | 1    | 0.5                             | 152.0 | 23.6                     | 388B         |

**Notes:**

- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IzT per JEDEC Method.

## RATING AND CHARACTERISTIC CURVES (CZRC5340B-G Thru CZRC5388B-G)

Fig.1 - Power Temperature Derating Current

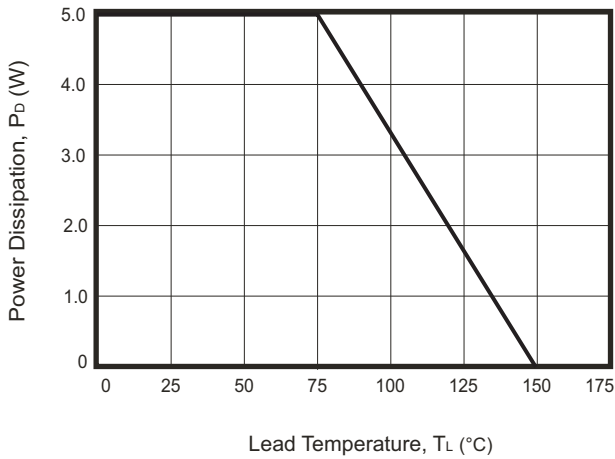


Fig.2 - Temperature Coefficients v.s. Zener Voltage

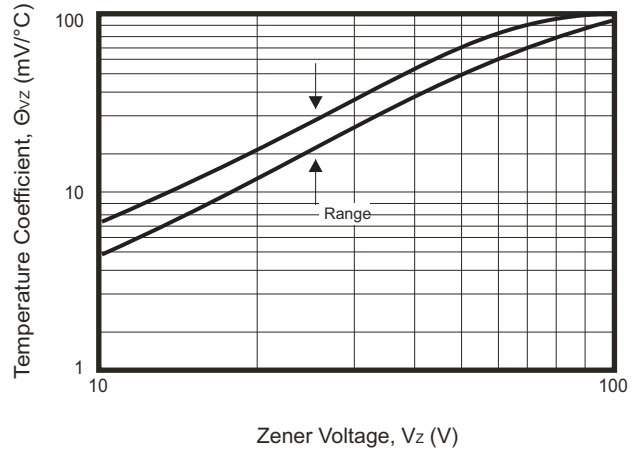


Fig.3 - Typical Thermal Resistance v.s. Lead Length

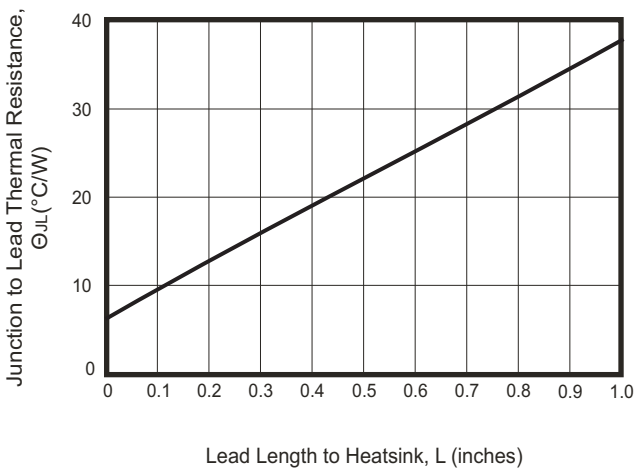


Fig.4 - Maximum Surge Power

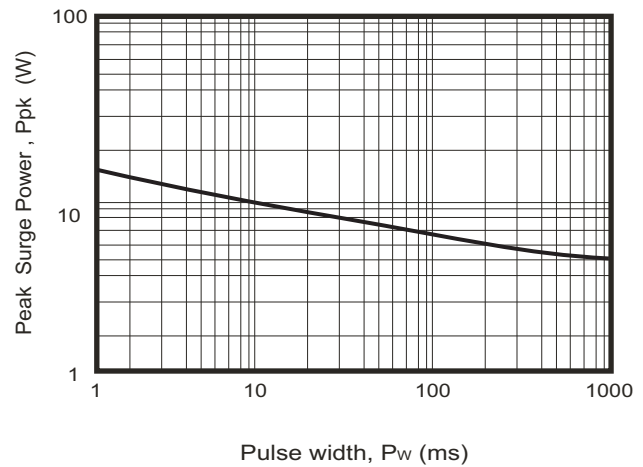
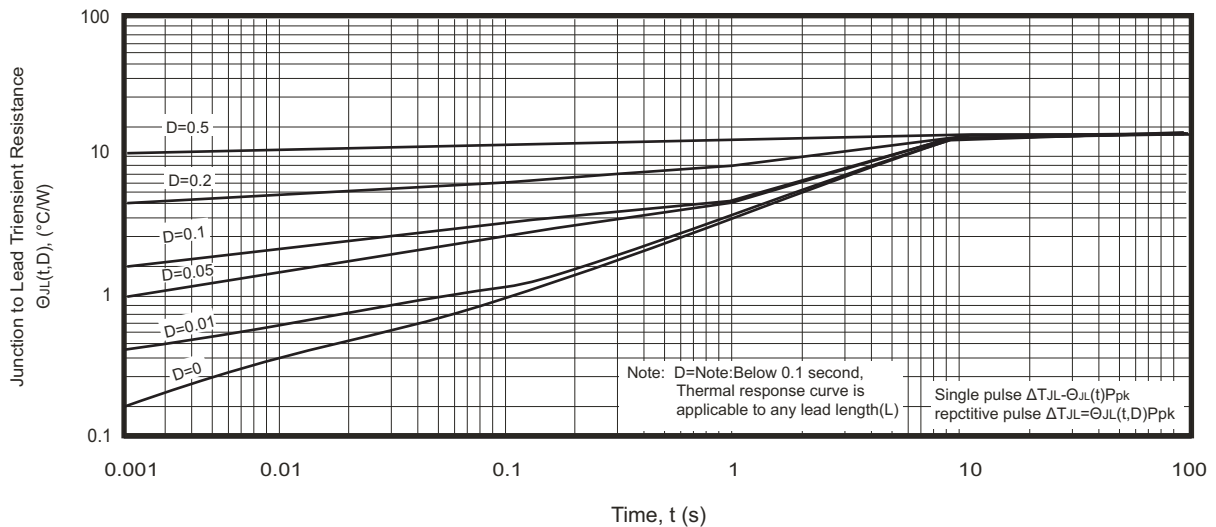
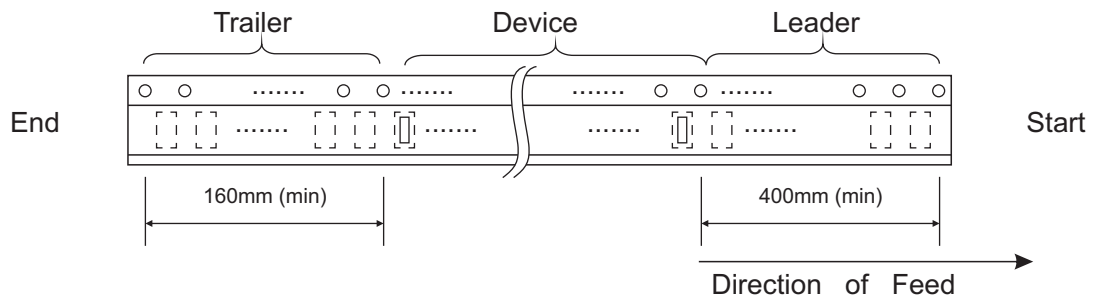
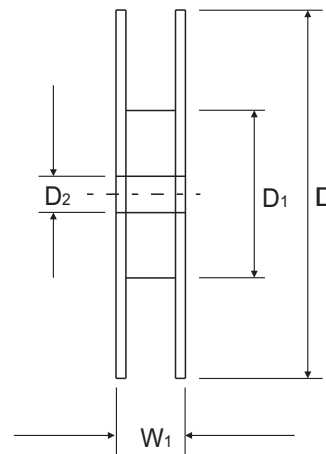
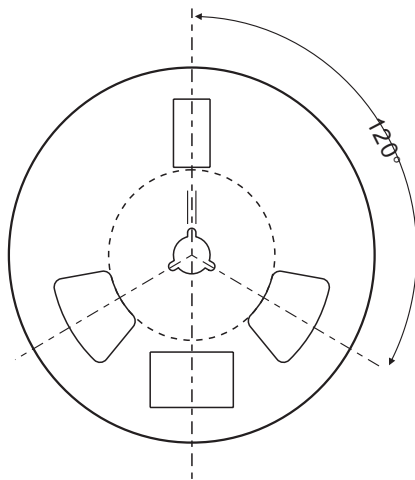
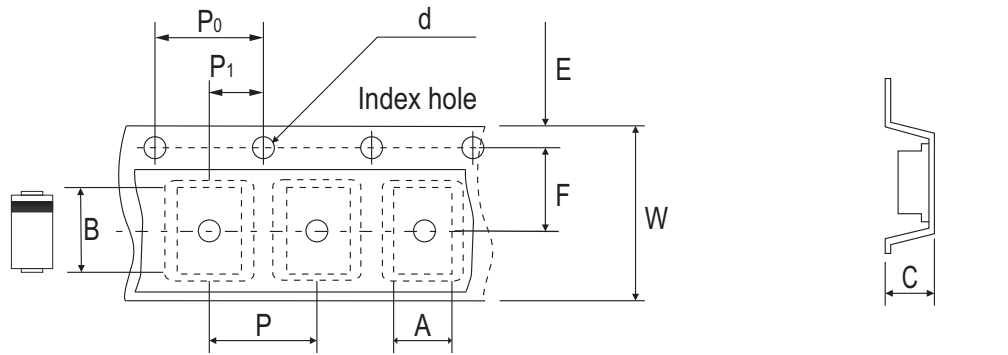


Fig.5 - Typical Thermal Response  $L$ , Lead Length=3/8 inch



## Reel Taping Specification



| DO-214AB<br>(SMC) | SYMBOL | A             | B             | C             | d             | D             | D1          | D2            |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|-------------|---------------|
|                   | (mm)   | 6.05 ± 0.10   | 8.31 ± 0.10   | 2.54 ± 0.10   | 1.55 ± 0.10   | 330.00 ± 2.00 | 50.00 (min) | 13.00 ± 0.20  |
|                   | (inch) | 0.238 ± 0.004 | 0.327 ± 0.004 | 0.100 ± 0.004 | 0.061 ± 0.004 | 12.99 ± 0.079 | 1.969 (min) | 0.512 ± 0.008 |

| DO-214AB<br>(SMC) | SYMBOL | E             | F             | P             | P0            | P1            | W             | W1          |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|
|                   | (mm)   | 1.75 ± 0.10   | 7.50 ± 0.10   | 8.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.10   | 16.00 ± 0.30  | 22.40 (max) |
|                   | (inch) | 0.069 ± 0.004 | 0.295 ± 0.004 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.630 ± 0.012 | 0.882 (max) |

## Marking Code

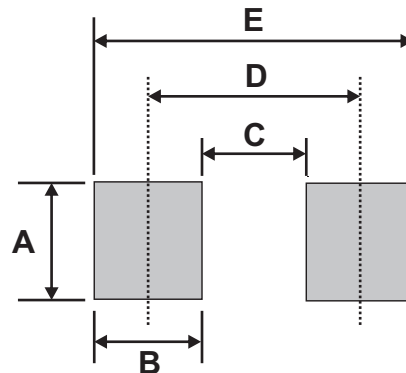
| Part Number                             | Marking Code |
|---|--------------|
| CZRC5340B-G Thru.<br>CZRC5388B-G Series | XXX          |



1. XXX: Marking code (see Page.2~3)
2. █ : Cathod Band

## Suggested PAD Layout

| SIZE | DO-214AB(SMC) |        |
|------|---------------|--------|
|      | (mm)          | (inch) |
| A    | 3.40          | 0.134  |
| B    | 2.50          | 0.098  |
| C    | 4.40          | 0.173  |
| D    | 6.90          | 0.272  |
| E    | 9.40          | 0.370  |



## Standard Packaging

| Case Type      | REEL PACK    |                  |
|----------------|--------------|------------------|
|                | REEL ( pcs ) | Reel Size (inch) |
| DO-214AB (SMC) | 3,000        | 13               |

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[CZRC5387B-G](#) [CZRC5357B-G](#) [CZRC5378B-G](#) [CZRC5367B-G](#) [CZRC5352B-G](#) [CZRC5343B-G](#) [CZRC5346B-G](#)  
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