

1. PRODUCT Zener diode (Silicon Epitaxial Planer)
2. TYPE CDZ B series
3. APPLICATION Voltage regulation
4. FEATURE Ultra small mold type (VMN2)  
By chip-mounter, automatic mounting is possible

5. ABSOLUTE MAXIMUM RATING (Ta=25°C)

|                       |      |       |            |
|-----------------------|------|-------|------------|
| Power dissipation     | P    | ..... | 100 mW     |
| Junction temperature  | Tj   | ..... | 150 °C     |
| Storage temperature   | Tstg | ..... | -55~150 °C |
| Operation temperature | Topr | ..... | -55~150 °C |

6. ELECTRICAL CHARACTERISTIC (Ta=25°C)

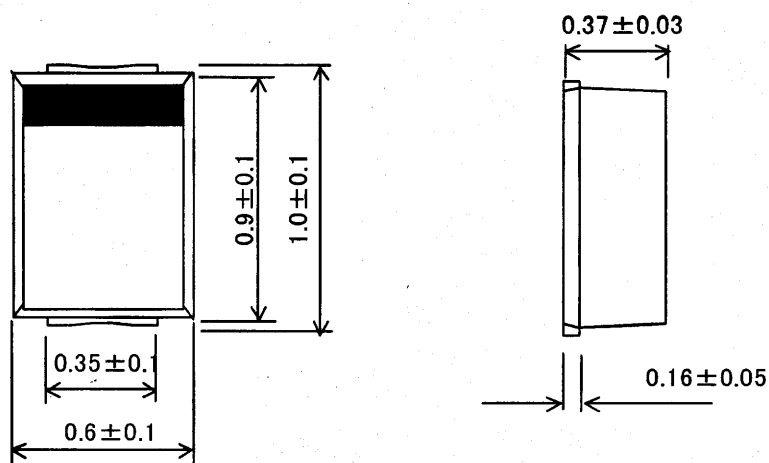
| Type No  | Zener Voltage |        |         | Dynamic Impedance |         | Dynamic Knee Impedance |         | Reverse Current |        |
|----------|---------------|--------|---------|-------------------|---------|------------------------|---------|-----------------|--------|
|          | VZ (V)        |        |         | Zz (Ω)            |         | Zzk (Ω)                |         | IR (μA)         |        |
|          | MIN.          | MAX.   | Iz (mA) | MAX.              | Iz (mA) | MAX.                   | Iz (mA) | MAX.            | VR (V) |
| CDZ 3.6B | 3.600         | 3.845  | 5.0     | 100               | 5.0     | 1000                   | 1.0     | 10              | 1.0    |
| CDZ 3.9B | 3.890         | 4.160  | 5.0     | 100               | 5.0     | 1000                   | 1.0     | 5.0             | 1.0    |
| CDZ 4.3B | 4.170         | 4.430  | 5.0     | 100               | 5.0     | 1000                   | 1.0     | 5.0             | 1.0    |
| CDZ 4.7B | 4.550         | 4.750  | 5.0     | 100               | 5.0     | 800                    | 0.5     | 2.0             | 1.0    |
| CDZ 5.1B | 4.980         | 5.200  | 5.0     | 80                | 5.0     | 500                    | 0.5     | 2.0             | 1.5    |
| CDZ 5.6B | 5.490         | 5.730  | 5.0     | 60                | 5.0     | 200                    | 0.5     | 1.0             | 2.5    |
| CDZ 6.2B | 6.060         | 6.330  | 5.0     | 60                | 5.0     | 100                    | 0.5     | 1.0             | 3.0    |
| CDZ 6.8B | 6.650         | 6.930  | 5.0     | 40                | 5.0     | 60                     | 0.5     | 0.5             | 3.5    |
| CDZ 7.5B | 7.280         | 7.600  | 5.0     | 30                | 5.0     | 60                     | 0.5     | 0.5             | 4.0    |
| CDZ 8.2B | 8.020         | 8.360  | 5.0     | 30                | 5.0     | 60                     | 0.5     | 0.5             | 5.0    |
| CDZ 9.1B | 8.850         | 9.230  | 5.0     | 30                | 5.0     | 60                     | 0.5     | 0.5             | 6.0    |
| CDZ 10B  | 9.770         | 10.210 | 5.0     | 30                | 5.0     | 60                     | 0.5     | 0.1             | 7.0    |
| CDZ 11B  | 10.760        | 11.220 | 5.0     | 30                | 5.0     | 60                     | 0.5     | 0.1             | 8.0    |
| CDZ 12B  | 11.740        | 12.240 | 5.0     | 30                | 5.0     | 80                     | 0.5     | 0.1             | 9.0    |
| CDZ 13B  | 12.910        | 13.490 | 5.0     | 37                | 5.0     | 80                     | 0.5     | 0.1             | 10.0   |
| CDZ 15B  | 14.340        | 14.980 | 5.0     | 42                | 5.0     | 80                     | 0.5     | 0.1             | 11.0   |
| CDZ 16B  | 15.850        | 16.510 | 5.0     | 50                | 5.0     | 80                     | 0.5     | 0.1             | 12.0   |

(1) Zener voltage (Vz) shall be measured at 40ms after loading current.

(2) Dynamic resistance(Zz) shall be measured by applying very small AC current and specify current (Iz) simultaneously.

|                           |                            |                             |                   |                                      |
|---------------------------|----------------------------|-----------------------------|-------------------|--------------------------------------|
| DESIGN<br><i>M. Shono</i> | CHECK<br><i>J. Koshino</i> | APPROVAL<br><i>Y. Shono</i> | DATE: NOV.17.2004 | SPECIFICATION No. : CDZ B series*ENG |
|                           |                            |                             | REV.A             | ROHM CO.,LTD.                        |

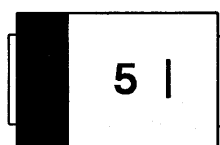
## 7. DIMENSION (UNIT:mm)



## 8. MARKING (TYPE No.)

| TYPE     | TYPE NO. | TYPE     | TYPE NO. |
|----------|----------|----------|----------|
| CDZ 3.6B | 7        | CDZ 8.2B | H        |
| CDZ 3.9B | <u>1</u> | CDZ 9.1B | J        |
| CDZ 4.3B | <u>2</u> | CDZ 10B  | K        |
| CDZ 4.7B | <u>3</u> | CDZ 11B  | L        |
| CDZ 5.1B | <u>5</u> | CDZ 12B  | N        |
| CDZ 5.6B | <u>7</u> | CDZ 13B  | S        |
| CDZ 6.2B | C        | CDZ 15B  | <u>C</u> |
| CDZ 6.8B | E        | CDZ 16B  | <u>E</u> |
| CDZ 7.5B | F        |          |          |

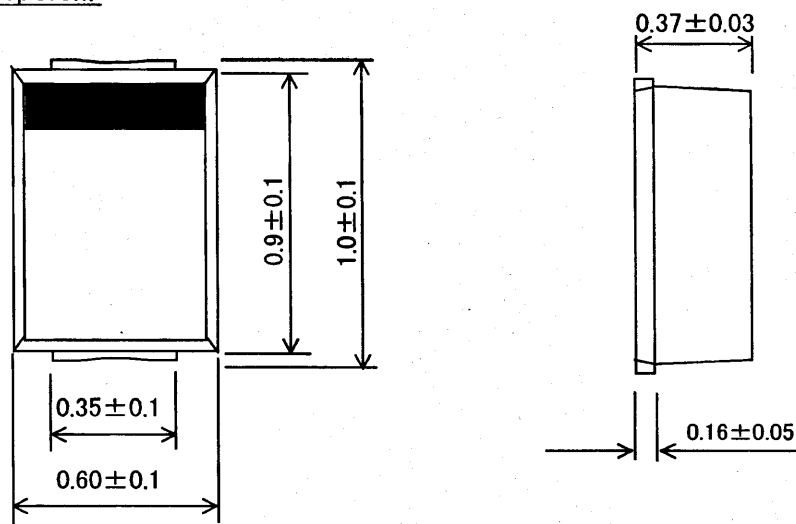
(EX) CDZ 5.1B



•The marking is written horizontally  
 •The letters underlined indicate that they have a bar on the right side of the letter.  
 Please refer to the picture on the left.

**1. Scope.** This specification covers the tape packing requirements for VMN2 package.  
For individual diodes the applicable specification shall be refer to.

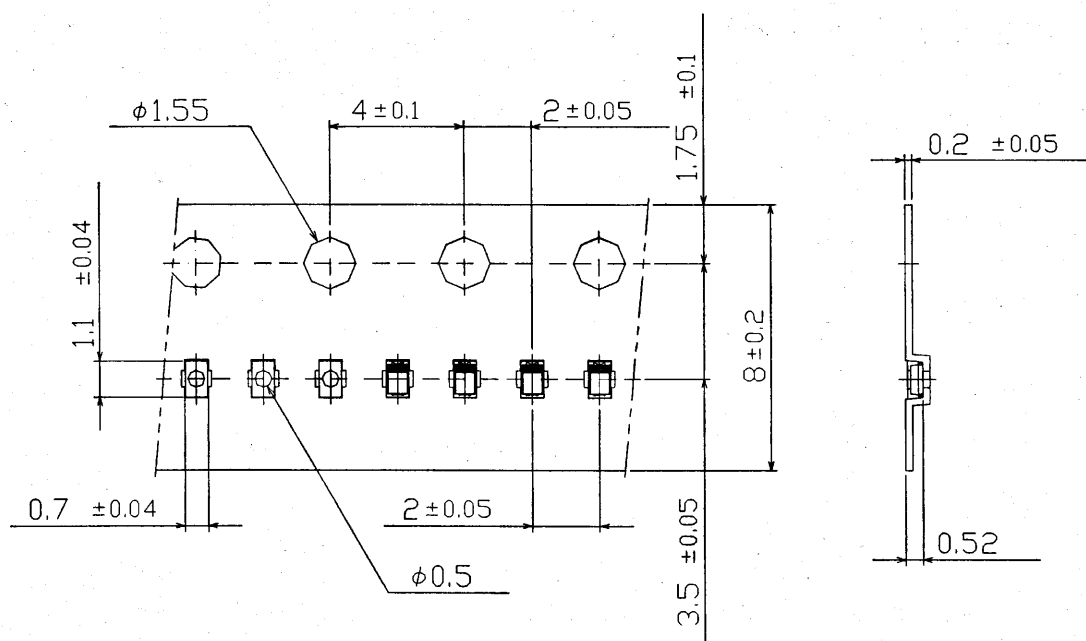
**2. Components description.**



UNIT:mm

Note) The applicable specification describes in detail for individual diode. This figure is only for reference.

**3. Taping dimensions.**



UNIT:mm

Note) Feed holes might be cover with the adhesive tapr, but nothing will affect for using by that.

|                             |                          |                              |                  |                                   |
|-----------------------------|--------------------------|------------------------------|------------------|-----------------------------------|
| DESIGN<br><i>y. Okamoto</i> | CHECK<br><i>A. Saito</i> | APPROVAL<br><i>y. Schize</i> | DATE:NOV.10.2004 | SPECIFICATION No. : VMN 2 * T 2 R |
|                             |                          |                              | REV.A            | ROHM CO., LTD.                    |

## 4. Taping packing specification.

### 4.1 Direction of tape winding.

The direction shall be one in a reel.

### 4.2 Cumulative pitch tolerance.

The cumulative pitch tolerance of the mold for producing the carrier tape shall be within  $\pm 0.2\text{mm}$  per 10 pitches.

### 4.3 The minimum radius to bend the carrier tape.

Carrier tape shall be flexible enough to protect from no component and damage under a minimum radius of 25mm. However, it shall be defined only inside of carrier tape.

### 4.4 Strength to peel off the covering, tape.

Strength to peel off the covering tape from the carrier tape shall be according to spec on chart 1.

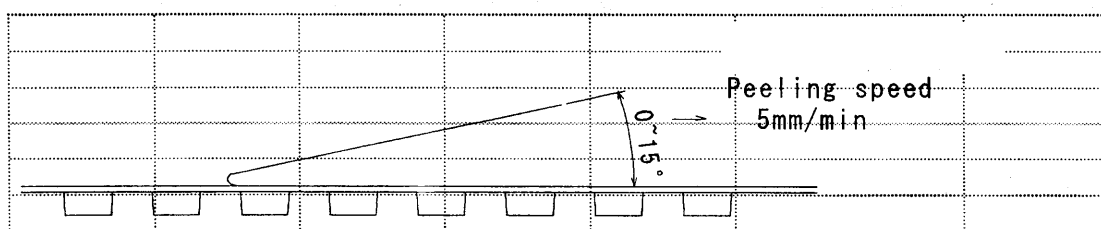


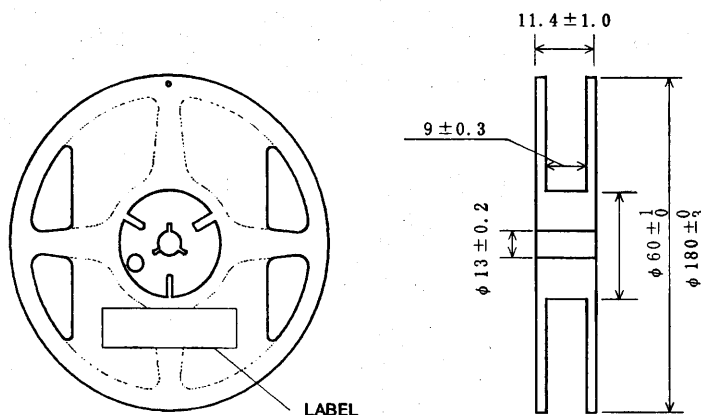
表 1

| standard         | MIN.   | MAX.   |
|------------------|--------|--------|
| peeling strength | 0. 1 N | 0. 7 N |

### 4.5 The material of carrier tape.

PC (Polycarbonate)

## 5. Reel dimensions.

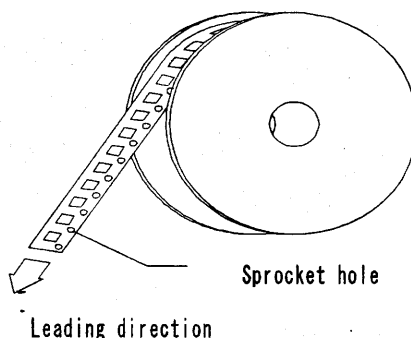


UNIT : mm

## 6. Reeling specification.

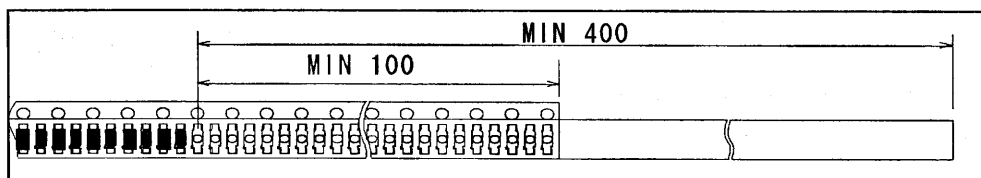
### 6.1 Leading direction

Leading direction of carrier tape shall be indicated as below.



### 6.2 Leader.

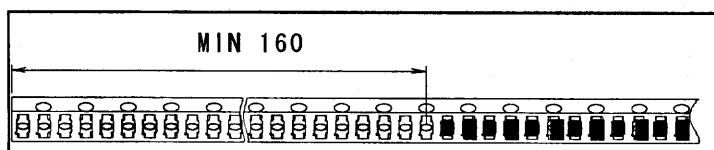
Leader tape shall be separated into two parts - an adhesive tape at first part and carrier tape without products.



UNIT:mm

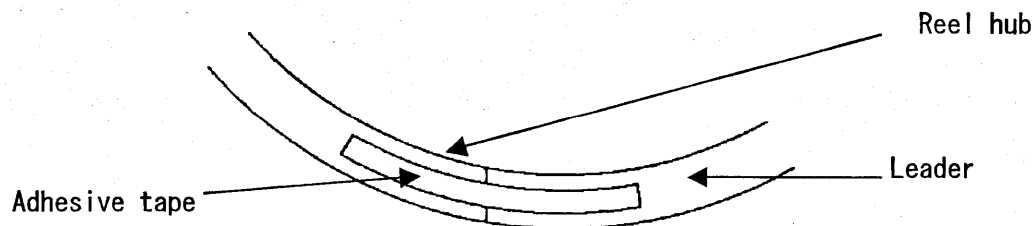
### 6.3 Trail.

Trail tape shall remain with no product and trail tape shall not be stuck directly on a reel.



## 7. Treatment for end of tape.

The end of leader tape shall be fixed with the white adhesive tape.



8. Type. Product code of taping shall be composed as indicated below.

EX : RB520CS

Type code

T 2 R

Taping code

9. Quantity Quantity per one package is 8,000pcs.

10. Marking. Each reel shall be legibly marked with the following items.

1. Type
2. Quantity
3. Lot No.
4. Inspector No.
5. Trademark.

\* Bar Code is displayed, too.

11. Package. The reel shall be packed in the paper case or plastic case.