# Zener diode

## **CDZ5.1B**

## Applications

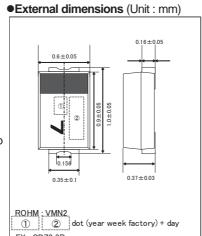
Constant voltage control

#### Features

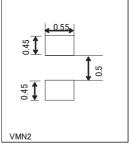
- 1) 2-pin ultra mini-mold type for high-density mounting (VMN2).
- 2) High reliability.
- 3) Can be mounted automatically, using chip mounter.

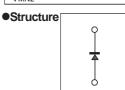
## Construction

Silicon epitaxial planar

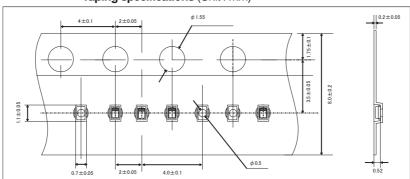


●Land size figure (Unit : mm)









## ● Absolute maximum ratings (Ta=25°C)

| -7.15001410 114241114111190 (14-20 0) |        |             |      |  |  |  |  |
|---------------------------------------|--------|-------------|------|--|--|--|--|
| Parameter                             | Symbol | Limits      | Unit |  |  |  |  |
| Power dissipation                     | Р      | 100         | mW   |  |  |  |  |
| Junction temperature                  | Tj     | 150         | °C   |  |  |  |  |
| Storage temperature                   | Tstg   | -55 to +150 | °C   |  |  |  |  |
| Operating temperature                 | Topr   | -55 to +150 | °C   |  |  |  |  |

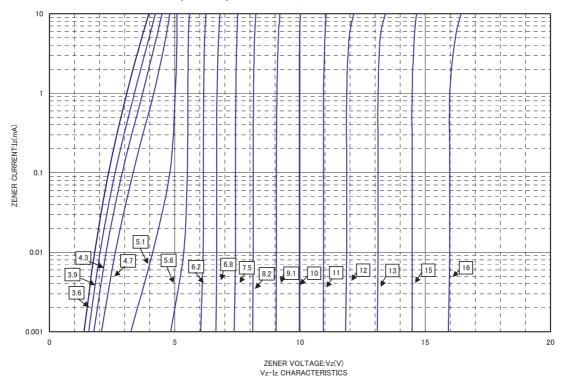
## ●Electrical characteristics (Ta=25°C)

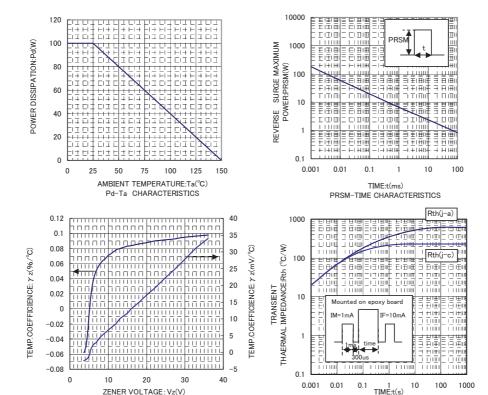
|          | Symbol                |        |                             |      |                                    |        |                          |      |       |
|----------|-----------------------|--------|-----------------------------|------|------------------------------------|--------|--------------------------|------|-------|
| TYP.     | Zener voltage : Vz(V) |        | Operating resistance :Zz(Ω) |      | Rising operating resistance: Zz(Ω) |        | Reverse current : IR(uA) |      |       |
|          | 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                                | 1000.0 | 1.0                      | 10.0 | 1.0   |
| CDZ 3.9B | 3.890                 | 4.160  | 5.0                         | 100  | 5.0                                | 1000.0 | 1.0                      | 5.0  | 1.0   |
| CDZ 4.3B | 4.170                 | 4.430  | 5.0                         | 100  | 5.0                                | 1000.0 | 1.0                      | 5.0  | 1.0   |
| CDZ 4.7B | 4.550                 | 4.750  | 5.0                         | 100  | 5.0                                | 800.0  | 0.5                      | 2.0  | 1.0   |
| CDZ 5.1B | 4.980                 | 5.200  | 5.0                         | 80   | 5.0                                | 500.0  | 0.5                      | 2.0  | 1.5   |
| CDZ 5.6B | 5.490                 | 5.730  | 5.0                         | 60   | 5.0                                | 200.0  | 0.5                      | 1.0  | 2.5   |
| CDZ 6.2B | 6.060                 | 6.330  | 5.0                         | 60   | 5.0                                | 100.0  | 0.5                      | 1.0  | 3.0   |
| CDZ 6.8B | 6.650                 | 6.930  | 5.0                         | 40   | 5.0                                | 60.0   | 0.5                      | 0.5  | 3.5   |
| CDZ 7.5B | 7.280                 | 7.600  | 5.0                         | 30   | 5.0                                | 60.0   | 0.5                      | 0.5  | 4.0   |
| CDZ 8.2B | 8.020                 | 8.360  | 5.0                         | 30   | 5.0                                | 60.0   | 0.5                      | 0.5  | 5.0   |
| CDZ 9.1B | 8.850                 | 9.230  | 5.0                         | 30   | 5.0                                | 60.0   | 0.5                      | 0.5  | 6.0   |
| CDZ 10B  | 9.770                 | 10.210 | 5.0                         | 30   | 5.0                                | 60.0   | 0.5                      | 0.1  | 7.0   |
| CDZ 11B  | 10.760                | 11.220 | 5.0                         | 30   | 5.0                                | 60.0   | 0.5                      | 0.1  | 8.0   |
| CDZ 12B  | 11.740                | 12.240 | 5.0                         | 30   | 5.0                                | 80.0   | 0.5                      | 0.1  | 9.0   |
| CDZ 13B  | 12.910                | 13.490 | 5.0                         | 37   | 5.0                                | 80.0   | 0.5                      | 0.1  | 10.0  |
| CDZ 15B  | 14.340                | 14.980 | 5.0                         | 42   | 5.0                                | 80.0   | 0.5                      | 0.1  | 11.0  |
| CDZ 16B  | 15.850                | 16.510 | 5.0                         | 50   | 5.0                                | 80.0   | 0.5                      | 0.1  | 12.0  |

## ●Type No.

| TYPE     | TYPE NO. | TYPE     | TYPE NO. |
|----------|----------|----------|----------|
| CDZ 3.6B | 7        | CDZ 8.2B | Н        |
| 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 | С        | CDZ 15B  | <u>C</u> |
| CDZ 6.8B | E        | CDZ 16B  | <u>E</u> |
| CDZ 7.5B | F        |          | _        |

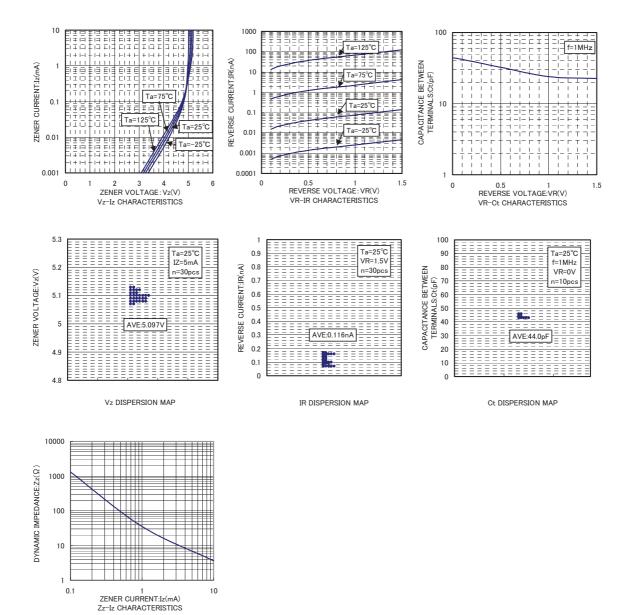
## ●Electrical characteristic curves (Ta=25°C)





 $\gamma$  z-Vz CHARACTERISTICS

Rth-t CHARACTERISTICS



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