

# Zener Diode

## EDZ9.1B

### ●Applications

Constant voltage control

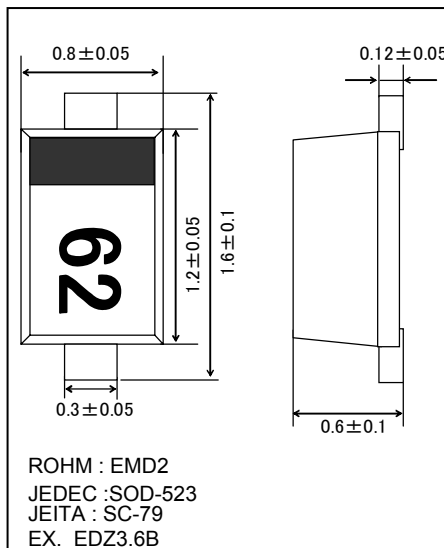
### ●Features

- 1) 2-pin ultra mini-mold type for high-density mounting (EMD2)
- 2) High reliability
- 3) Can be mounted automatically, using chip mounter.

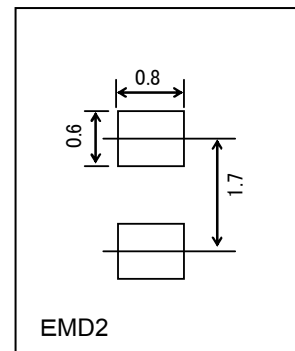
### ●Construction

Silicon epitaxial planer

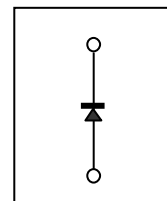
### ●Dimensions (Unit : mm)



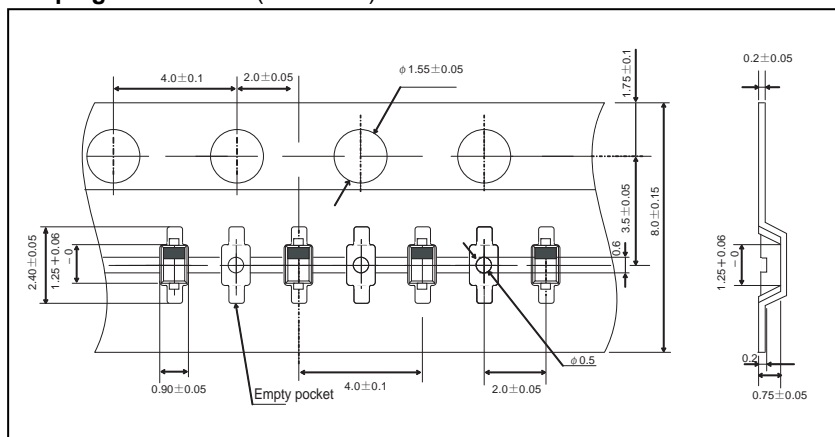
### ●Land size figure (Unit : mm)



### ●Structure



### ●Taping dimensions (Unit : mm)



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

| Parameter             | Symbol           | Limits      | Unit |
|-----------------------|------------------|-------------|------|
| Power dissipation     | P                | 150         | mW   |
| Junction temperature  | T <sub>j</sub>   | 150         | °C   |
| Storage temperature   | T <sub>stg</sub> | -55 to +150 | °C   |
| Operating temperature | T <sub>opr</sub> | -55 to +150 | °C   |

## ●Electical voltage (Ta=25°C)

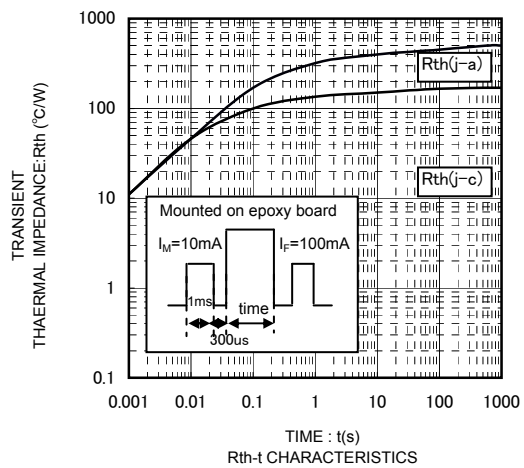
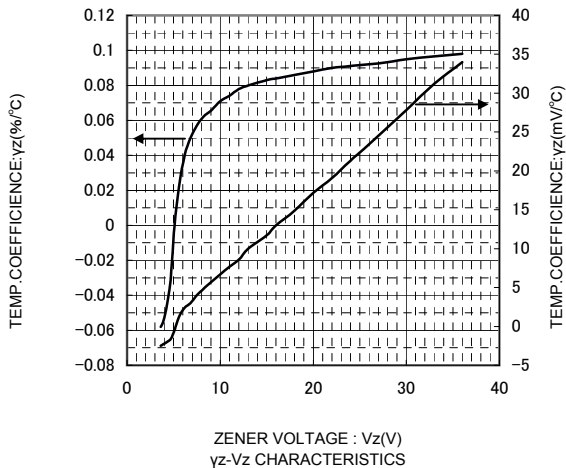
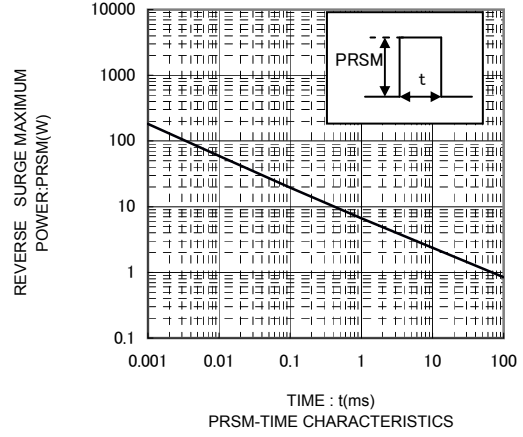
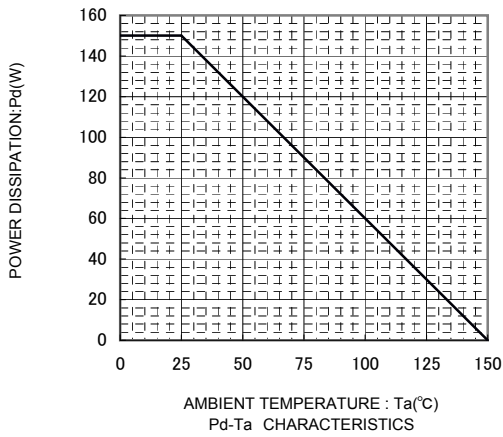
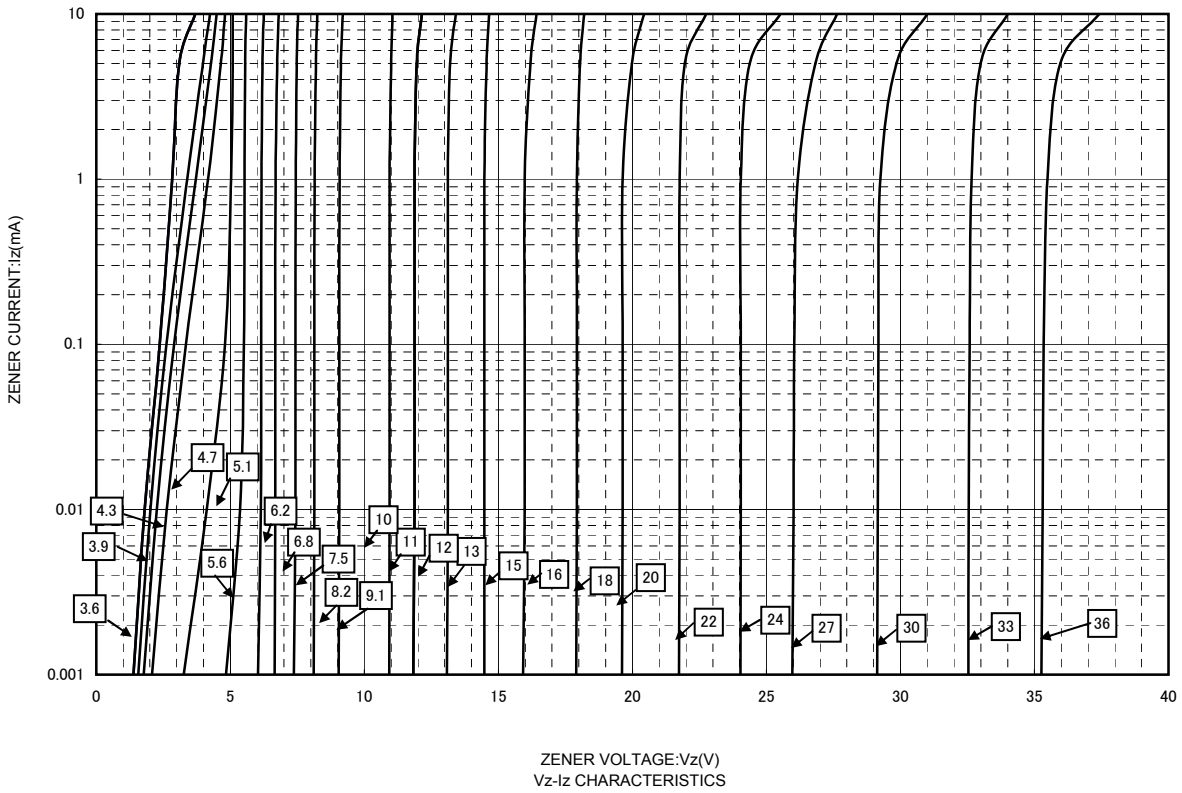
| TYP.     | Symbol               |        |                     |                                       |                     |  |                     |   |                    |
|----------|----------------------|--------|---------------------|---------------------------------------|---------------------|--|---------------------|---|--------------------|
|          | Zener voltage: Vz(V) |        |                     | Operating resistance : Zz( $\Omega$ ) |                     | Rising operating resistance : Zz( $\Omega$ ) |                     | Reverse current : I <sub>R</sub> ( $\mu$ A) |                    |
|          | MIN.                 | MAX.   | I <sub>z</sub> (mA) | MAX.                                  | I <sub>z</sub> (mA) | MAX.   | I <sub>z</sub> (mA) | MAX.  | V <sub>R</sub> (V) |
| EDZ 3.6B | 3.600                | 3.845  | 5.0                 | 100                                   | 5.0                 | 1000   | 1.0                 | 10.0  | 1.0                |
| EDZ 3.9B | 3.890                | 4.160  | 5.0                 | 100                                   | 5.0                 | 1000   | 1.0                 | 5.0   | 1.0                |
| EDZ 4.3B | 4.170                | 4.430  | 5.0                 | 100                                   | 5.0                 | 1000   | 1.0                 | 5.0   | 1.0                |
| EDZ 4.7B | 4.550                | 4.750  | 5.0                 | 100                                   | 5.0                 | 800  | 0.5                 | 2.0   | 1.0                |
| EDZ 5.1B | 4.980                | 5.200  | 5.0                 | 80                                    | 5.0                 | 500  | 0.5                 | 2.0   | 1.5                |
| EDZ 5.6B | 5.490                | 5.730  | 5.0                 | 60                                    | 5.0                 | 200  | 0.5                 | 1.0   | 2.5                |
| EDZ 6.2B | 6.060                | 6.330  | 5.0                 | 60                                    | 5.0                 | 100  | 0.5                 | 1.0   | 3.0                |
| EDZ 6.8B | 6.650                | 6.930  | 5.0                 | 40                                    | 5.0                 | 60   | 0.5                 | 0.5   | 3.5                |
| EDZ 7.5B | 7.280                | 7.600  | 5.0                 | 30                                    | 5.0                 | 60   | 0.5                 | 0.5   | 4.0                |
| EDZ 8.2B | 8.020                | 8.360  | 5.0                 | 30                                    | 5.0                 | 60   | 0.5                 | 0.5   | 5.0                |
| EDZ 9.1B | 8.850                | 9.230  | 5.0                 | 30                                    | 5.0                 | 60   | 0.5                 | 0.5   | 6.0                |
| EDZ 10B  | 9.770                | 10.210 | 5.0                 | 30                                    | 5.0                 | 60   | 0.5                 | 0.1   | 7.0                |
| EDZ 11B  | 10.760               | 11.220 | 5.0                 | 30                                    | 5.0                 | 60   | 0.5                 | 0.1   | 8.0                |
| EDZ 12B  | 11.740               | 12.240 | 5.0                 | 30                                    | 5.0                 | 80   | 0.5                 | 0.1   | 9.0                |
| EDZ 13B  | 12.910               | 13.490 | 5.0                 | 37                                    | 5.0                 | 80   | 0.5                 | 0.1   | 10.0               |
| EDZ 15B  | 14.340               | 14.980 | 5.0                 | 42                                    | 5.0                 | 80   | 0.5                 | 0.1   | 11.0               |
| EDZ 16B  | 15.850               | 16.510 | 5.0                 | 50                                    | 5.0                 | 80   | 0.5                 | 0.1   | 12.0               |
| EDZ 18B  | 17.560               | 18.350 | 5.0                 | 65                                    | 5.0                 | 80   | 0.5                 | 0.1   | 13.0               |
| EDZ 20B  | 19.520               | 20.390 | 5.0                 | 85                                    | 5.0                 | 100  | 0.5                 | 0.1   | 15.0               |
| EDZ 22B  | 21.540               | 22.470 | 5.0                 | 100                                   | 5.0                 | 100  | 0.5                 | 0.1   | 17.0               |
| EDZ 24B  | 23.720               | 24.780 | 5.0                 | 120                                   | 5.0                 | 120  | 0.5                 | 0.1   | 19.0               |
| EDZ 27B  | 26.190               | 27.530 | 2.0                 | 150                                   | 2.0                 | 150  | 0.5                 | 0.1   | 21.0               |
| EDZ 30B  | 29.190               | 30.690 | 2.0                 | 200                                   | 2.0                 | 200  | 0.5                 | 0.1   | 23.0               |
| EDZ 33B  | 32.150               | 33.790 | 2.0                 | 250                                   | 2.0                 | 250  | 0.5                 | 0.1   | 25.0               |
| EDZ 36B  | 35.070               | 36.870 | 2.0                 | 300                                   | 2.0                 | 300  | 0.5                 | 0.1   | 27.0               |

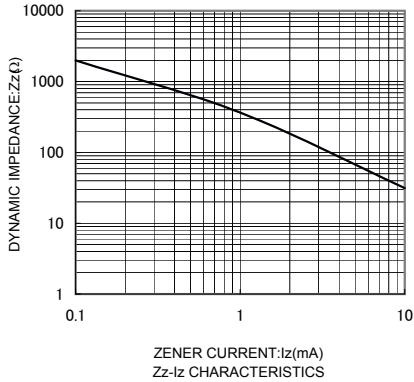
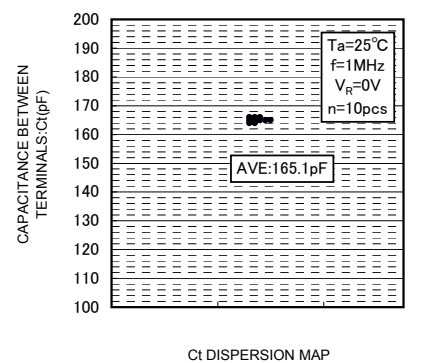
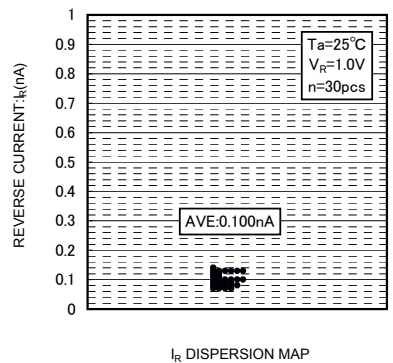
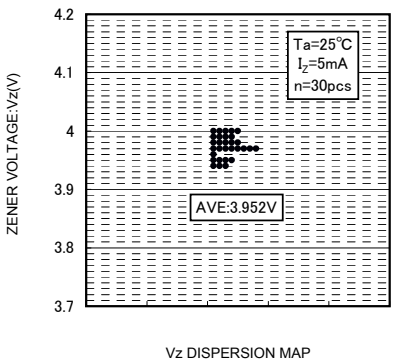
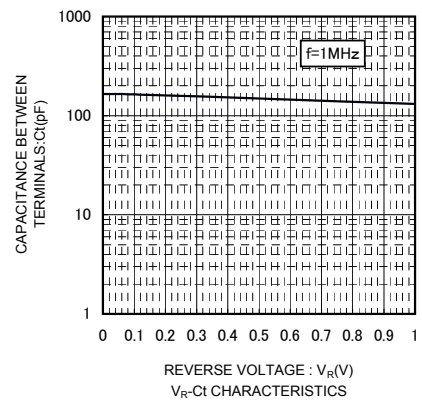
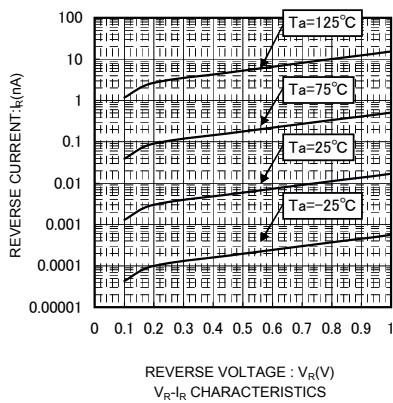
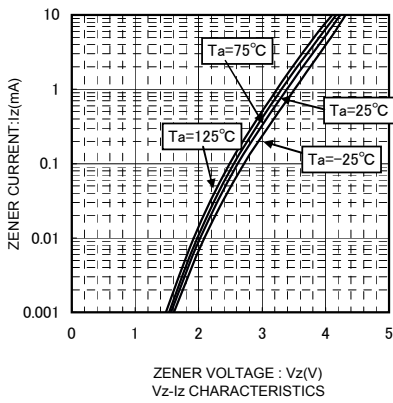
(1)The zener voltage(Vz) is measured 40ms after power is supplied.

(2)The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

## ●MARKING (Type No.)

| TYPE     | TYPE NO. | TYPE    | TYPE NO. |
|----------|----------|---------|----------|
| EDZ 3.6B | 62       | EDZ 12B | 25       |
| EDZ 3.9B | 72       | EDZ 13B | 35       |
| EDZ 4.3B | 82       | EDZ 15B | 45       |
| EDZ 4.7B | 92       | EDZ 16B | 55       |
| EDZ 5.1B | A2       | EDZ 18B | 65       |
| EDZ 5.6B | C2       | EDZ 20B | 75       |
| EDZ 6.2B | E2       | EDZ 22B | 85       |
| EDZ 6.8B | F2       | EDZ 24B | 95       |
| EDZ 7.5B | H2       | EDZ 27B | A5       |
| EDZ 8.2B | J2       | EDZ 30B | C5       |
| EDZ 9.1B | L2       | EDZ 33B | E5       |
| EDZ 10B  | O5       | EDZ 36B | F5       |
| EDZ 11B  | 15       |         |          |





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