

# Zener diode

## EDZV series

## ●Applications

### Constant voltage control

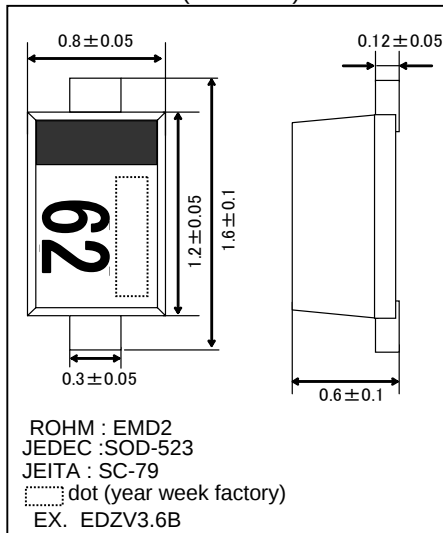
## ●Features

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

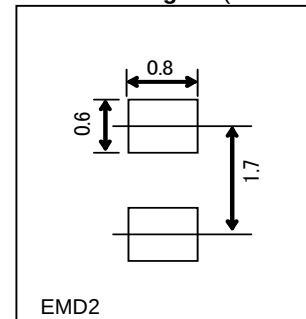
## ●Construction

Silicon epitaxial planar

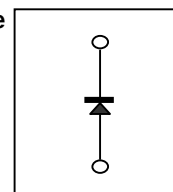
●Dimensions (Unit : mm)



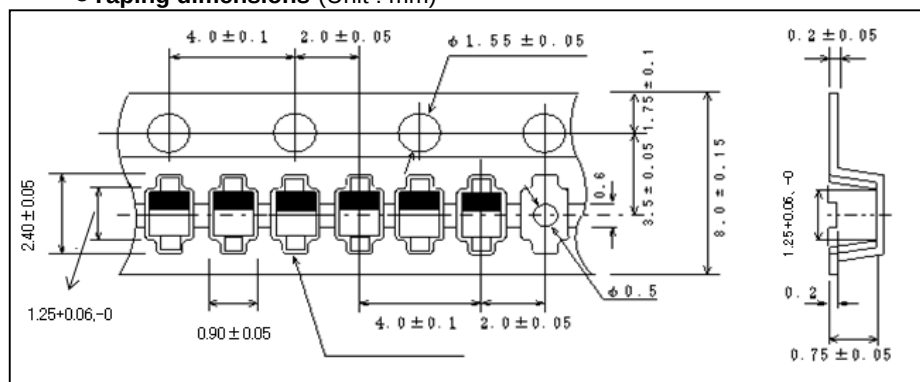
●Land size figure (Unit : mm)



### ● 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 characteristics (Ta=25°C)

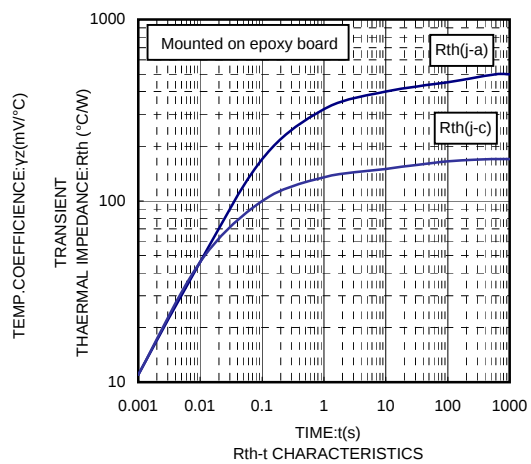
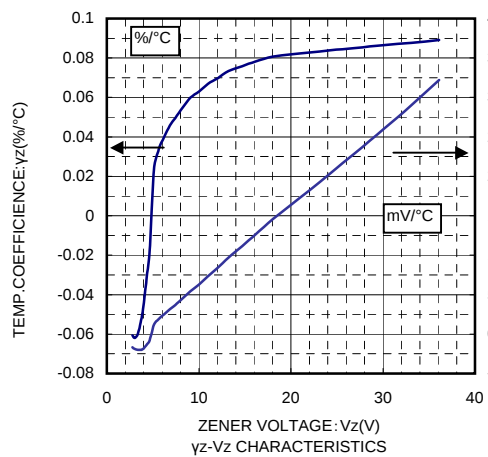
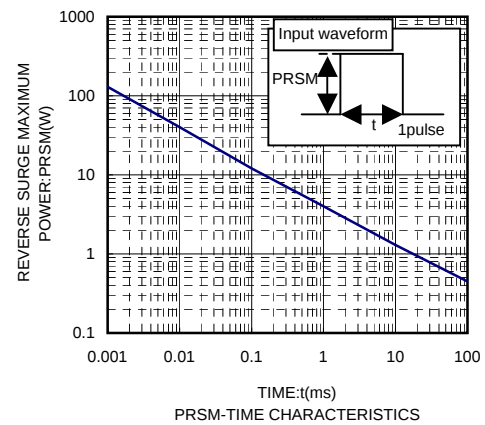
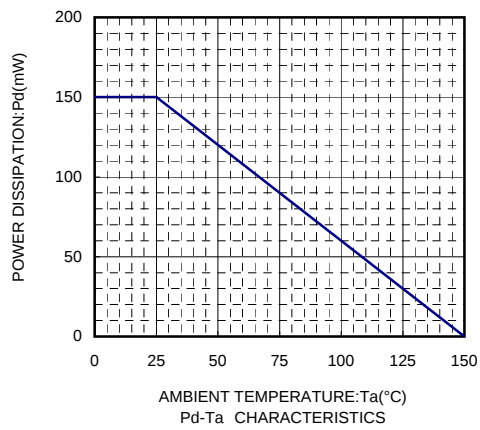
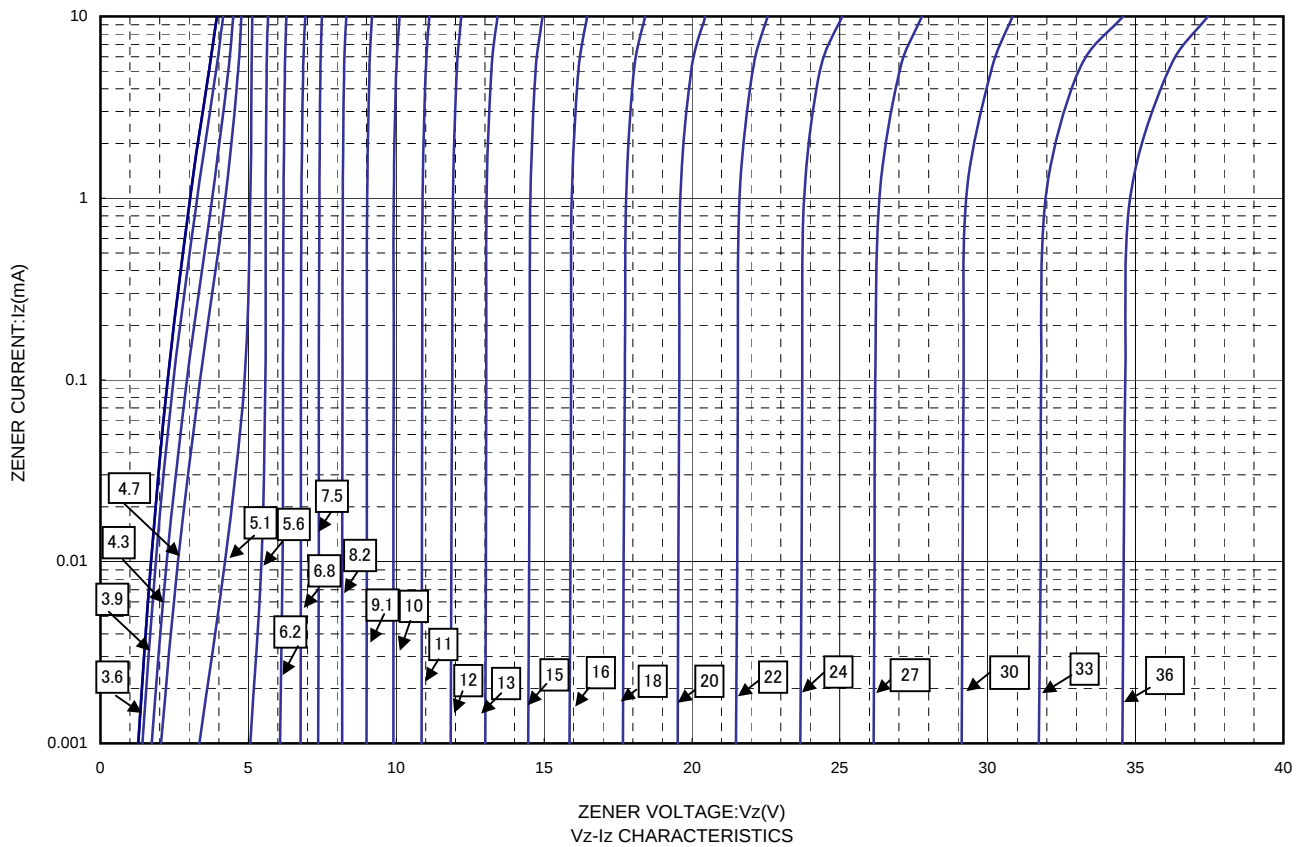
| TYP.      | Symbol                |        |        |                              |        |                                      |        |                          |                    |
|-----------|-----------------------|--------|--------|------------------------------|--------|--------------------------------------|--------|--------------------------|--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

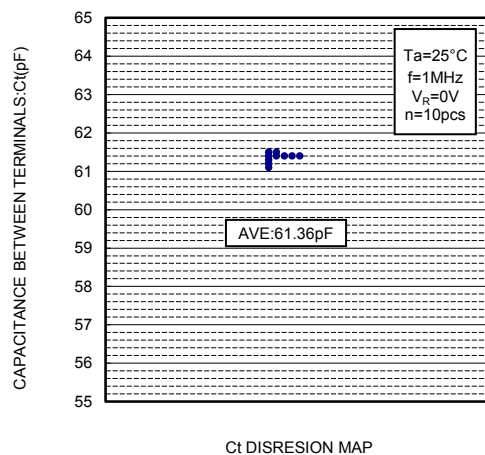
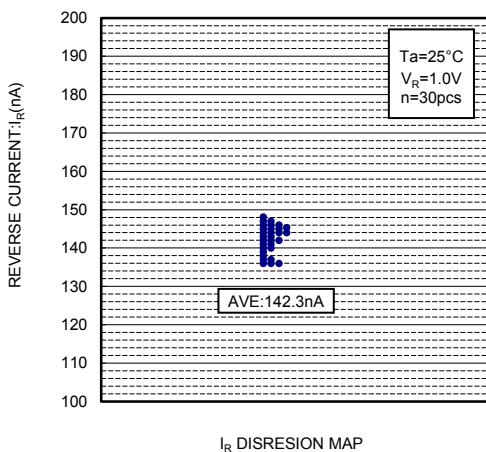
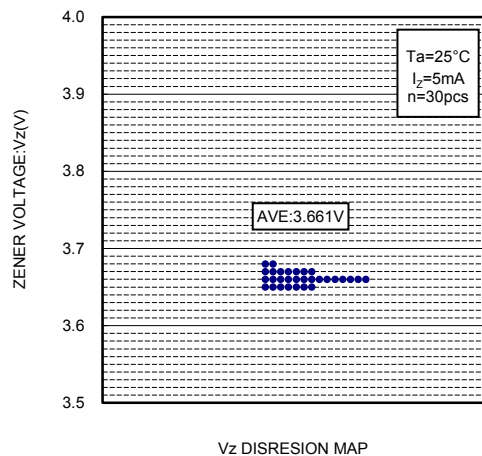
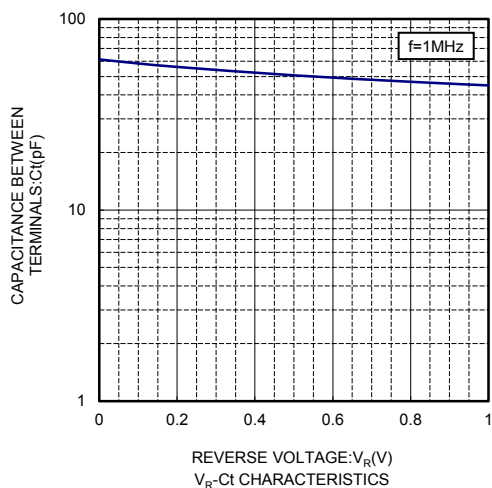
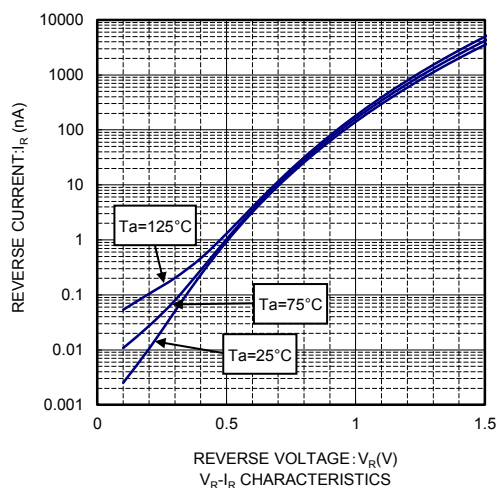
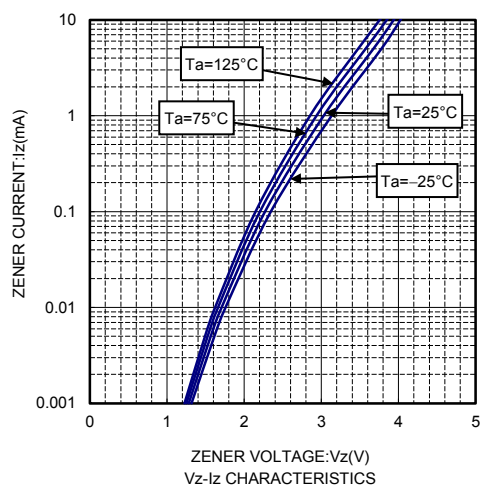
(1) The zener voltage(Vz) is measured 40ms after power is supplied.

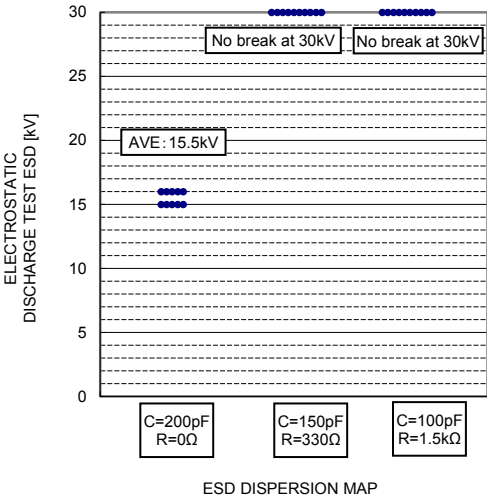
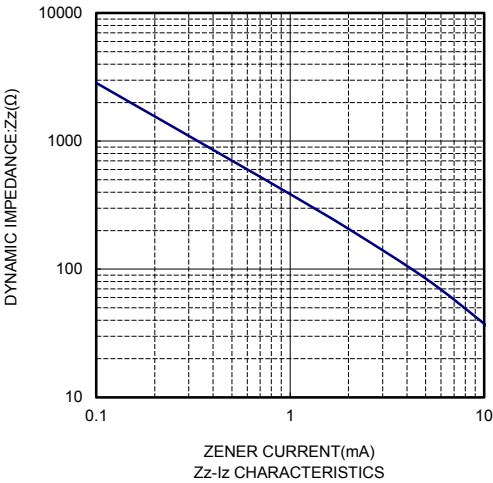
(2) The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

## ●MARKING (Type No.)

| TYPE      | TYPE NO. | TYPE     | TYPE NO. |
|-----------|----------|----------|----------|
| EDZV 3.6B | 6 2      | EDZV 12B | 2 5      |
| EDZV 3.9B | 7 2      | EDZV 13B | 3 5      |
| EDZV 4.3B | 8 2      | EDZV 15B | 4 5      |
| EDZV 4.7B | 9 2      | EDZV 16B | 5 5      |
| EDZV 5.1B | A 2      | EDZV 18B | 6 5      |
| EDZV 5.6B | C 2      | EDZV 20B | 7 5      |
| EDZV 6.2B | E 2      | EDZV 22B | 8 5      |
| EDZV 6.8B | F 2      | EDZV 24B | 9 5      |
| EDZV 7.5B | H 2      | EDZV 27B | A 5      |
| EDZV 8.2B | J 2      | EDZV 30B | C 5      |
| EDZV 9.1B | L 2      | EDZV 33B | E 5      |
| EDZV 10B  | 0 5      | EDZV 36B | F 5      |
| EDZV 11B  | 1 5      |          |          |







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