

Zener diode

EDZ8.2B

●Applications

Constant voltage control

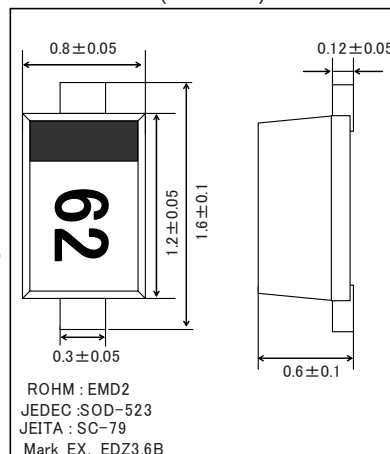
●Features

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

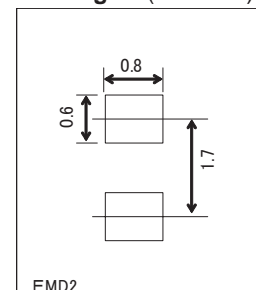
●Construction

Silicon epitaxial planar

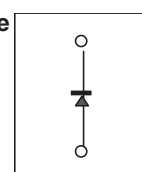
●Dimensions (Unit : mm)



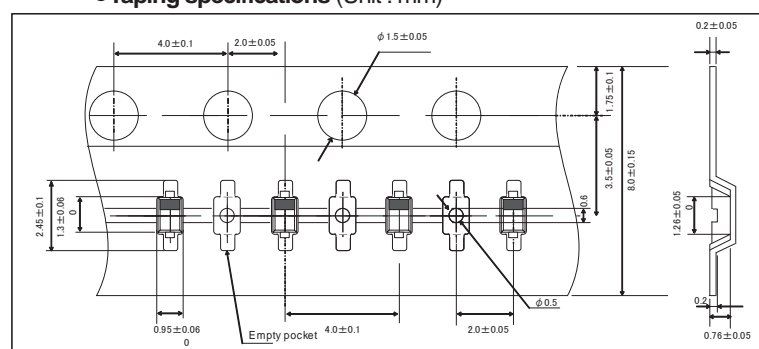
●Land size figure (Unit : mm)



●Structure



●Taping specifications (Unit : mm)

●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

| Parameter | Symbol | Limits | Unit |
|-----------------------|-----------|-------------|------------------|
| Power dissipation | P | 150 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |
| Operating temperature | T_{opr} | -55 to +150 | $^\circ\text{C}$ |

Diodes

●Electrical characteristics (Ta=25°C)

| TYP. | Symbol | | | | | | | | |
|----------|-----------------------|--------|--------|------------------------------|--------|-------------------------------------|--------|--------------------------|-------|
| | Zener voltage : Vz(V) | | | Operating resistance : Zz(Ω) | | Rising operating resistance : Zz(Ω) | | Reverse current : IR(μA) | |
| | MIN. | MAX. | Iz(mA) | MAX. | Iz(mA) | MAX. | Iz(mA) | MAX. | VR(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.

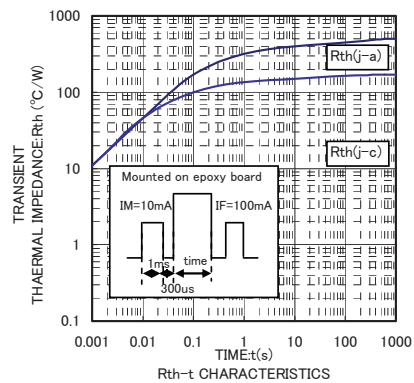
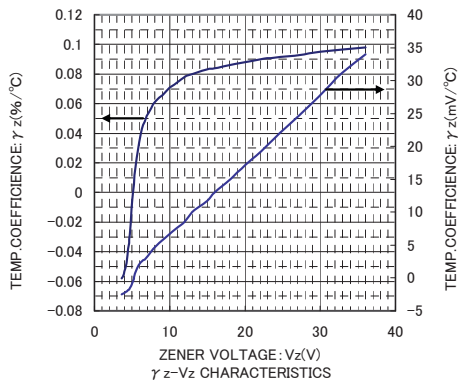
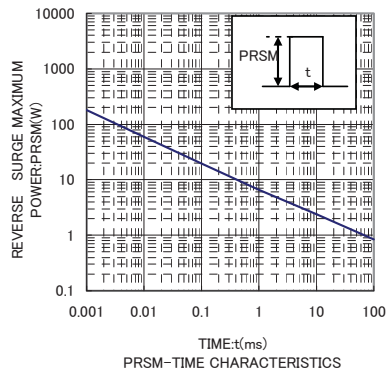
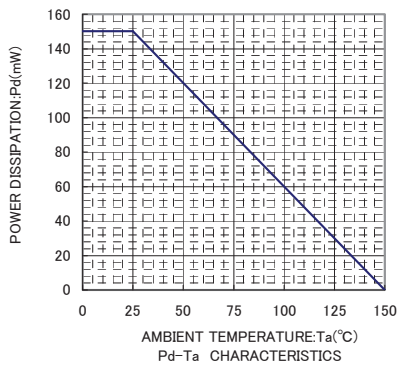
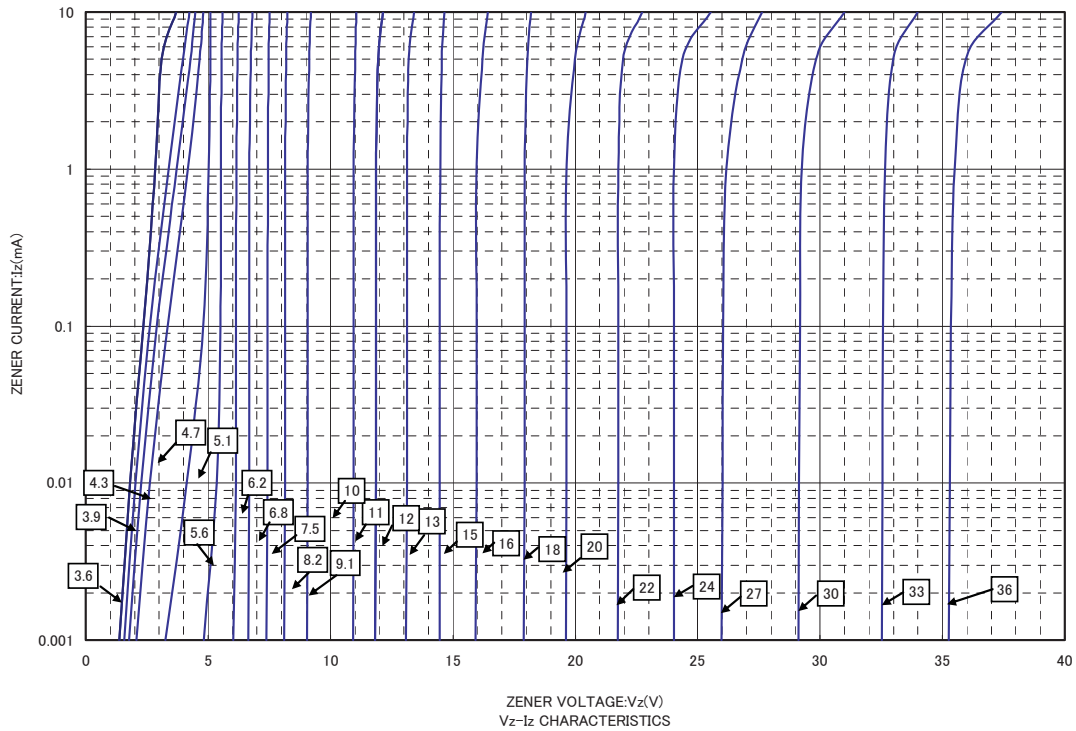
(2)The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

●Type No.

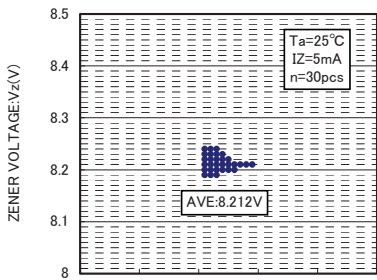
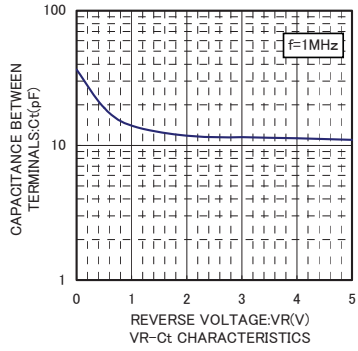
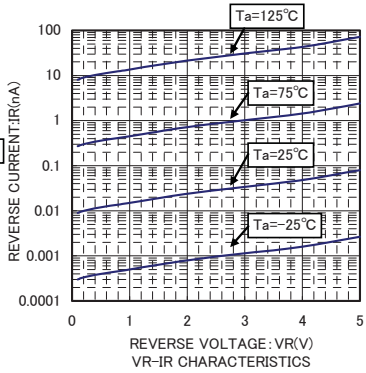
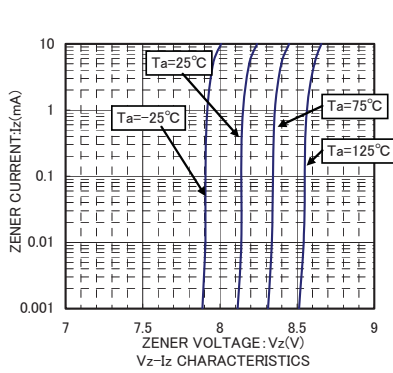
| TYPE | TYPE NO. | TYPE | TYPE NO. |
|----------|----------|---------|----------|
| EDZ 3.6B | 62 | EDZ 12B | 25 |
| EDZ 3.9B | 72 | EDZ 13B | 35 |
| EDZ 4.3B | 82 | EDZ 15B | 45 |
| EDZ 4.7B | 92 | EDZ 16B | 55 |
| EDZ 5.1B | A2 | EDZ 18B | 65 |
| EDZ 5.6B | C2 | EDZ 20B | 75 |
| EDZ 6.2B | E2 | EDZ 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 | | |

Diodes

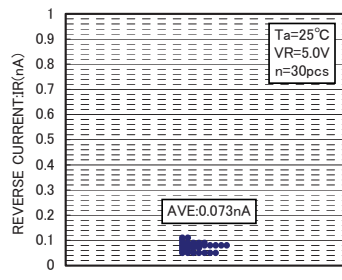
●Electrical characteristic curves (Ta=25°C)



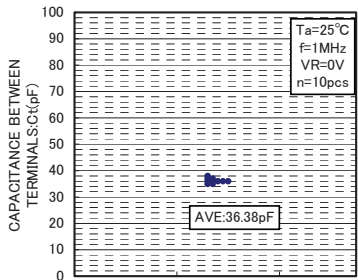
Diodes



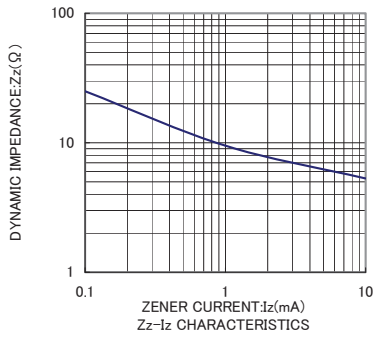
V_z DISPERSION MAP



I_R DISPERSION MAP



C_t DISPERSION MAP



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