

Zener diode

UDZS20B

●Applications

Constant voltage control

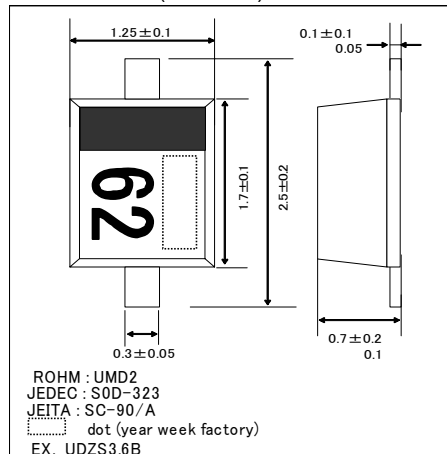
●Features

- 1) Compact, 2-pin mini-mold type for high-density mounting. (UMD2)
- 2) High reliability.
- 3) Can be mounted automatically, using chip mounter.

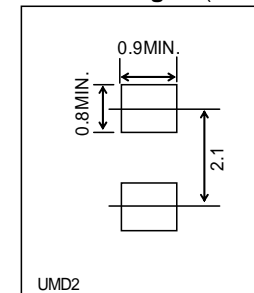
●Construction

Silicon epitaxial planar

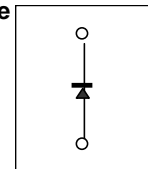
●Dimensions (Unit : mm)



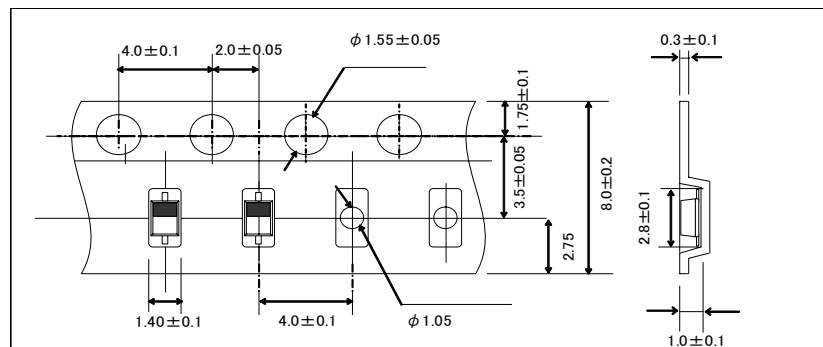
●Land size figure (Unit : mm)



●Structure



●Taping specifications (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|-----------------------|------------------|-------------|------|
| Power dissipation | P | 200 | mW |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |
| Operating temperature | T _{opr} | -55 to +150 | °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(μ A) | |
| | MIN. | MAX. | Iz(mA) | MAX. | Iz(mA) | MAX. | Iz(mA) | MAX. | VR(V) |
| UDZS 3.6B | 3.600 | 3.845 | 5.0 | 100 | 5.0 | 1000 | 1.0 | 10.0 | 1.0 |
| UDZS 3.9B | 3.890 | 4.160 | 5.0 | 100 | 5.0 | 1000 | 1.0 | 5.0 | 1.0 |
| UDZS 4.3B | 4.170 | 4.430 | 5.0 | 100 | 5.0 | 1000 | 1.0 | 5.0 | 1.0 |
| UDZS 4.7B | 4.550 | 4.750 | 5.0 | 100 | 5.0 | 800 | 0.5 | 2.0 | 1.0 |
| UDZS 5.1B | 4.980 | 5.200 | 5.0 | 80 | 5.0 | 500 | 0.5 | 2.0 | 1.5 |
| UDZS 5.6B | 5.490 | 5.730 | 5.0 | 60 | 5.0 | 200 | 0.5 | 1.0 | 2.5 |
| UDZS 6.2B | 6.060 | 6.330 | 5.0 | 60 | 5.0 | 100 | 0.5 | 1.0 | 3.0 |
| UDZS 6.8B | 6.650 | 6.930 | 5.0 | 40 | 5.0 | 60 | 0.5 | 0.5 | 3.5 |
| UDZS 7.5B | 7.280 | 7.600 | 5.0 | 30 | 5.0 | 60 | 0.5 | 0.5 | 4.0 |
| UDZS 8.2B | 8.020 | 8.360 | 5.0 | 30 | 5.0 | 60 | 0.5 | 0.5 | 5.0 |
| UDZS 9.1B | 8.850 | 9.230 | 5.0 | 30 | 5.0 | 60 | 0.5 | 0.5 | 6.0 |
| UDZS 10B | 9.770 | 10.210 | 5.0 | 30 | 5.0 | 60 | 0.5 | 0.1 | 7.0 |
| UDZS 11B | 10.760 | 11.220 | 5.0 | 30 | 5.0 | 60 | 0.5 | 0.1 | 8.0 |
| UDZS 12B | 11.740 | 12.240 | 5.0 | 30 | 5.0 | 80 | 0.5 | 0.1 | 9.0 |
| UDZS 13B | 12.910 | 13.490 | 5.0 | 37 | 5.0 | 80 | 0.5 | 0.1 | 10.0 |
| UDZS 15B | 14.340 | 14.980 | 5.0 | 42 | 5.0 | 80 | 0.5 | 0.1 | 11.0 |
| UDZS 16B | 15.850 | 16.510 | 5.0 | 50 | 5.0 | 80 | 0.5 | 0.1 | 12.0 |
| UDZS 18B | 17.560 | 18.350 | 5.0 | 65 | 5.0 | 80 | 0.5 | 0.1 | 13.0 |
| UDZS 20B | 19.520 | 20.390 | 5.0 | 85 | 5.0 | 100 | 0.5 | 0.1 | 15.0 |
| UDZS 22B | 21.540 | 22.470 | 5.0 | 100 | 5.0 | 100 | 0.5 | 0.1 | 17.0 |
| UDZS 24B | 23.720 | 24.780 | 5.0 | 120 | 5.0 | 120 | 0.5 | 0.1 | 19.0 |
| UDZS 27B | 26.190 | 27.530 | 5.0 | 150 | 5.0 | 150 | 0.5 | 0.1 | 21.0 |
| UDZS 30B | 29.190 | 30.690 | 5.0 | 200 | 5.0 | 200 | 0.5 | 0.1 | 23.0 |
| UDZS 33B | 32.150 | 33.790 | 5.0 | 250 | 5.0 | 250 | 0.5 | 0.1 | 25.0 |
| UDZS 36B | 35.070 | 36.870 | 5.0 | 300 | 5.0 | 300 | 0.5 | 0.1 | 27.0 |

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

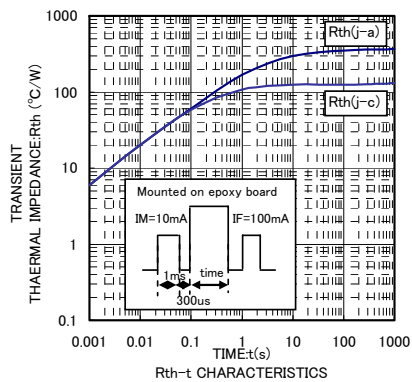
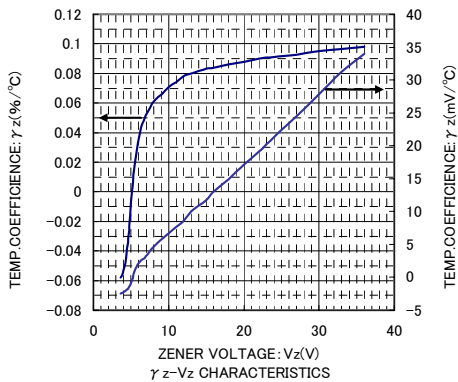
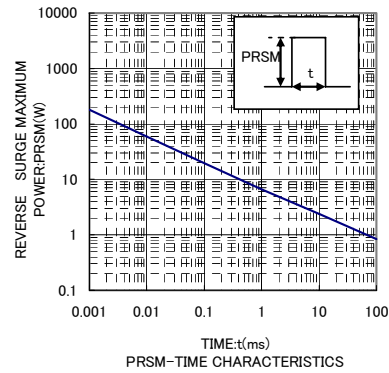
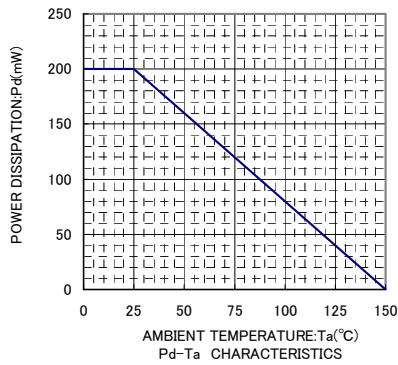
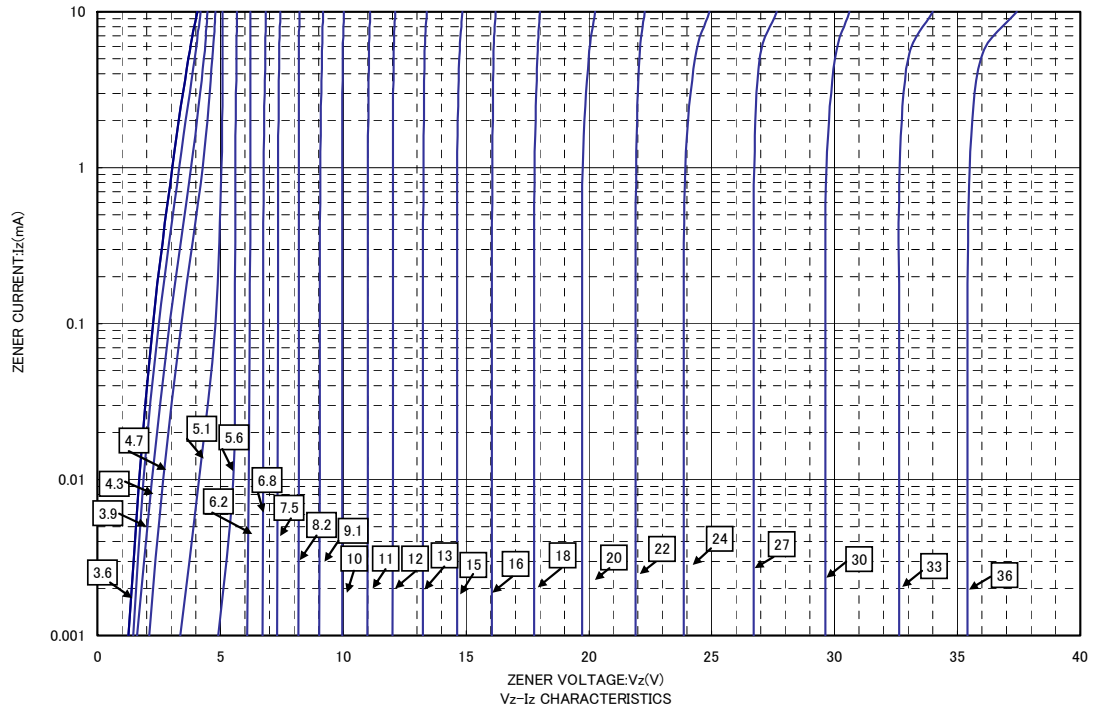
(2) The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

●Type No.

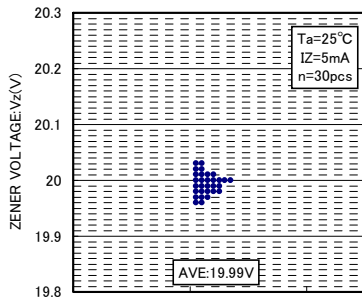
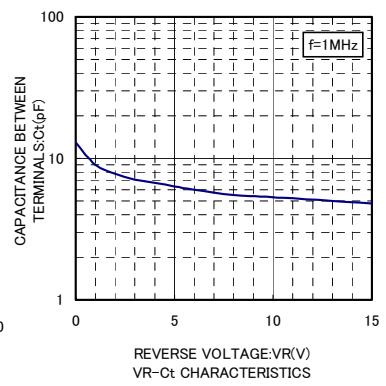
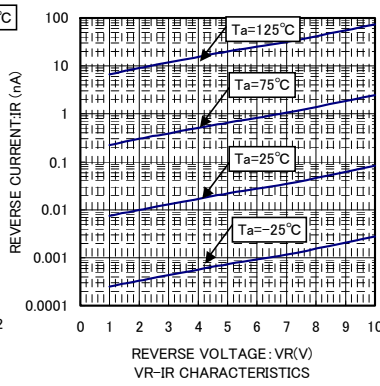
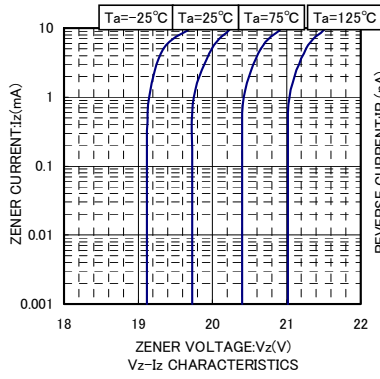
| TYPE | TYPE NO. | TYPE | TYPE NO. |
|-----------|----------|----------|----------|
| UDZS 3.6B | 62 | UDZS 12B | 25 |
| UDZS 3.9B | 72 | UDZS 13B | 35 |
| UDZS 4.3B | 82 | UDZS 15B | 45 |
| UDZS 4.7B | 92 | UDZS 16B | 55 |
| UDZS 5.1B | A2 | UDZS 18B | 65 |
| UDZS 5.6B | G2 | UDZS 20B | 75 |
| UDZS 6.2B | E2 | UDZS 22B | 85 |
| UDZS 6.8B | F2 | UDZS 24B | 95 |
| UDZS 7.5B | H2 | UDZS 27B | A5 |
| UDZS 8.2B | J2 | UDZS 30B | C5 |
| UDZS 9.1B | L2 | UDZS 33B | E5 |
| UDZS 10B | 05 | UDZS 36B | F5 |
| UDZS 11B | 15 | | |

Diodes

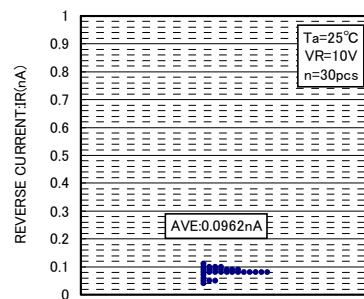
●Electrical characteristic curves (Ta=25°C)



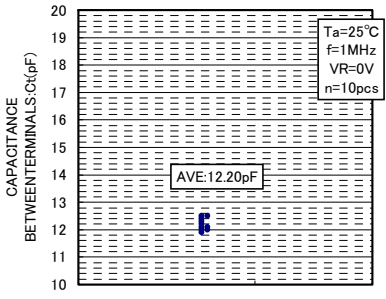
Diodes



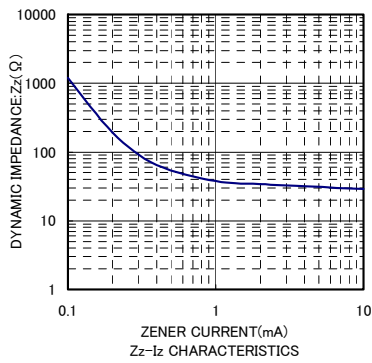
V_Z DISRESION MAP



I_R DISRESION MAP



C_t DISRESION MAP



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