

Zener diode

TDZ24

●Applications

Constant voltage control

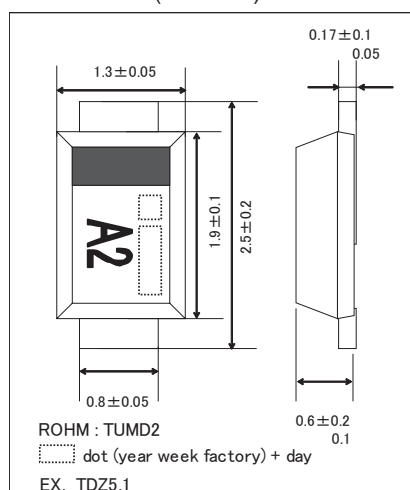
●Features

- 1) Small mold type. (TUMD2)
- 2) High reliability.
- 3) Can be mounted automatically, using chip mounter.

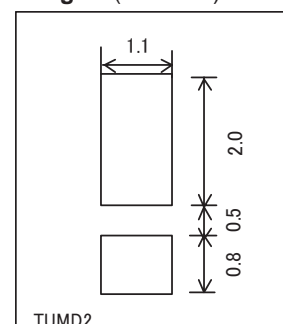
●Construction

Silicon epitaxial planar

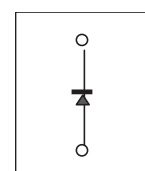
●Dimensions (Unit : mm)



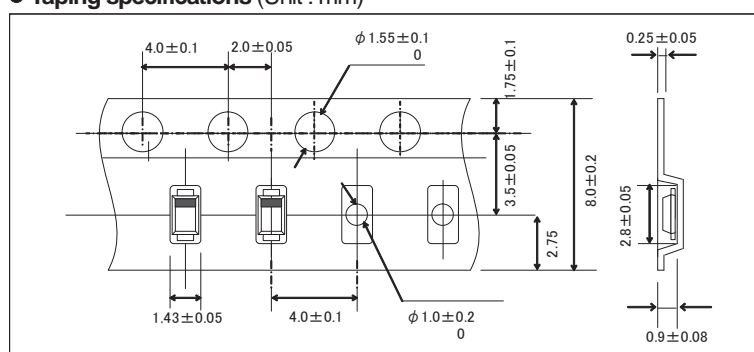
●Land size figure (Unit : mm)



●Structure



●Taping specifications (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|----------------------|------------------|------------|------|
| Power dissipation | P | 500 | mW |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55 to 150 | °C |
| Operating resistance | T _{opr} | -55 to 150 | °C |

Diodes

●Electrical characteristics (Ta=25°C)

| TYP. | Symbol | | | | |
|---------|-----------------------|-------|--------|--------------------------|-------|
| | Zener voltage : Vz(V) | | | Reverse current : IR(μA) | |
| | MIN. | MAX. | Iz(mA) | MAX. | VR(V) |
| TDZ 5.1 | 4.60 | 5.60 | 10 | 10 | 1.5 |
| TDZ 5.6 | 5.10 | 6.10 | 10 | 10 | 2.5 |
| TDZ 6.2 | 5.60 | 6.80 | 10 | 10 | 3.0 |
| TDZ 6.8 | 6.20 | 7.40 | 10 | 10 | 3.5 |
| TDZ 7.5 | 6.80 | 8.30 | 10 | 10 | 4.5 |
| TDZ 8.2 | 7.40 | 9.00 | 10 | 10 | 4.9 |
| TDZ 9.1 | 8.20 | 10.00 | 10 | 10 | 5.5 |
| TDZ 10 | 9.00 | 11.00 | 10 | 10 | 6.0 |
| TDZ 11 | 9.90 | 12.10 | 10 | 10 | 7.0 |
| TDZ 12 | 10.80 | 13.20 | 10 | 10 | 8.0 |
| TDZ 13 | 11.70 | 14.30 | 10 | 10 | 9.0 |
| TDZ 15 | 13.50 | 16.50 | 10 | 10 | 10.0 |
| TDZ 16 | 14.40 | 17.60 | 10 | 10 | 11.0 |
| TDZ 18 | 16.20 | 19.80 | 10 | 10 | 12.0 |
| TDZ 20 | 18.00 | 22.00 | 10 | 10 | 14.0 |
| TDZ 22 | 19.80 | 24.20 | 10 | 10 | 15.0 |
| TDZ 24 | 21.60 | 26.40 | 10 | 10 | 16.0 |
| TDZ 27 | 24.30 | 29.70 | 10 | 10 | 19.0 |
| TDZ 30 | 27.00 | 33.00 | 10 | 10 | 21.0 |

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

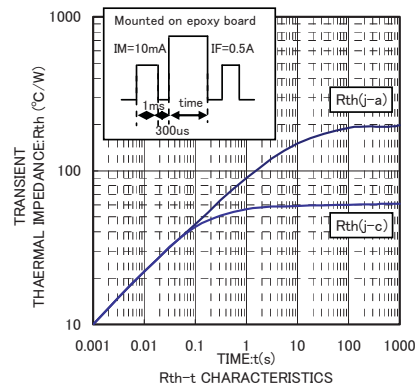
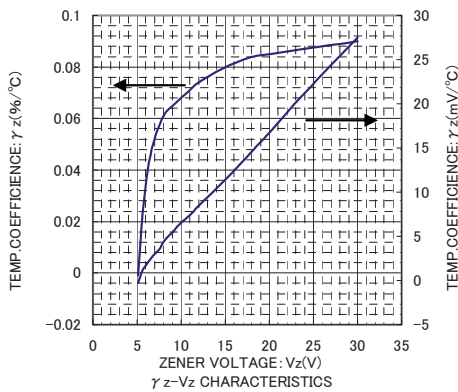
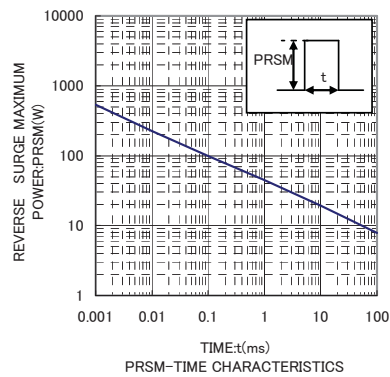
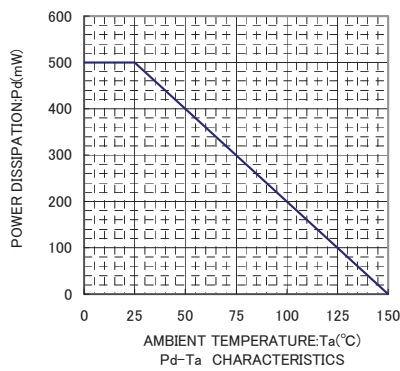
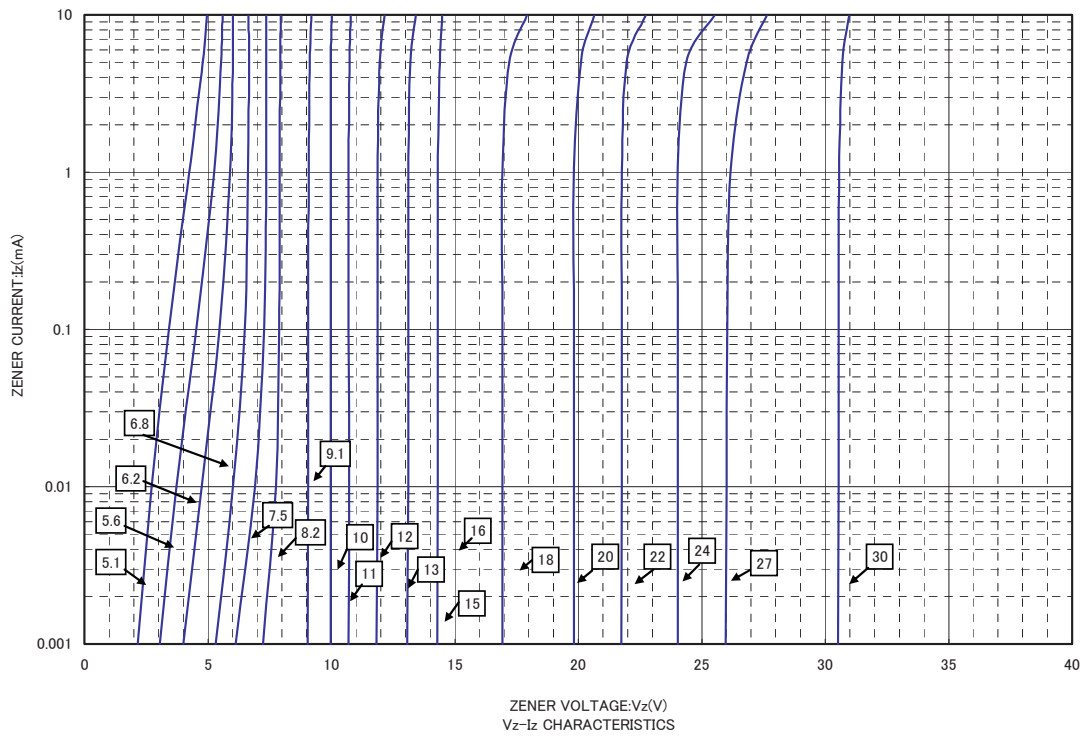
(2)The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

●Type No.

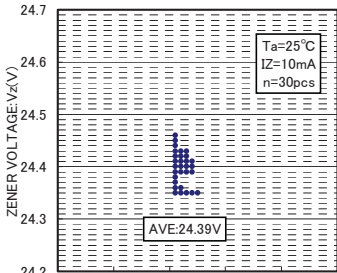
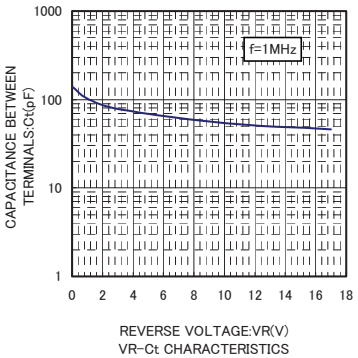
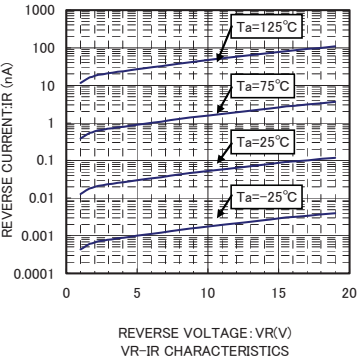
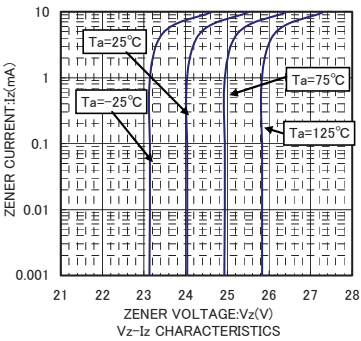
| TYPE | TYPE NO. | TYPE | TYPE NO. |
|---------|----------|--------|----------|
| TDZ 5.1 | A2 | TDZ 13 | 35 |
| TDZ 5.6 | C2 | TDZ 15 | 45 |
| TDZ 6.2 | E2 | TDZ 16 | 55 |
| TDZ 6.8 | F2 | TDZ 18 | 65 |
| TDZ 7.5 | H2 | TDZ 20 | 75 |
| TDZ 8.2 | J2 | TDZ 22 | 85 |
| TDZ 9.1 | L2 | TDZ 24 | 95 |
| TDZ 10 | 05 | TDZ 27 | A5 |
| TDZ 11 | 15 | TDZ 30 | C5 |
| TDZ 12 | 25 | | |

Diodes

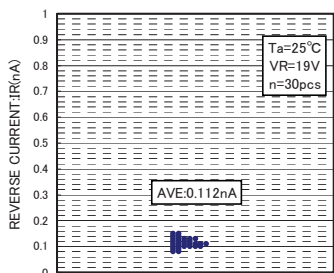
●Electrical characteristic curves (Ta=25°C)



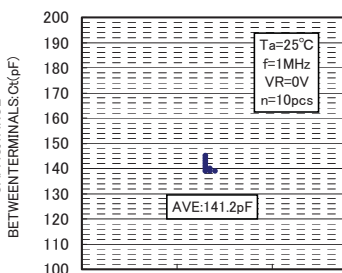
Diodes



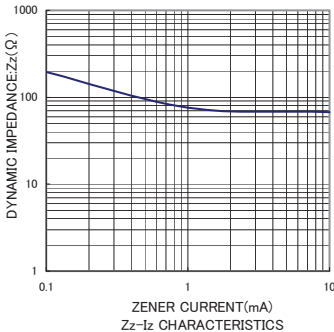
V_Z DISPERSION MAP



I_R DISPERSION MAP



C_t DISPERSION MAP



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