# Zener diode

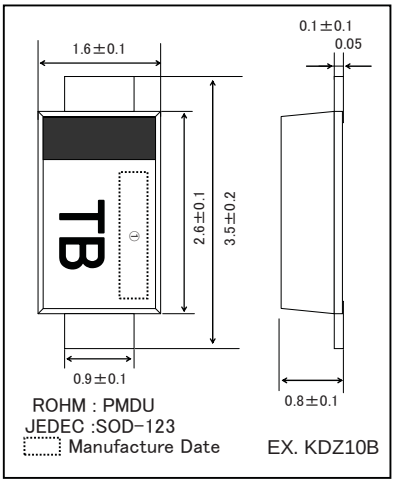
## KDZ18B

●**Applications**
Voltage regulation

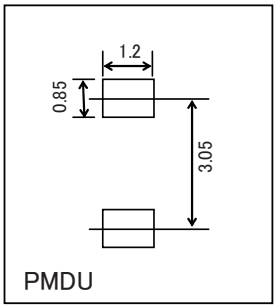
●**Features**
1) Small power mold type. (PMDU)
2) High ESD tolerance

●**Construction**
Silicon epitaxial planar

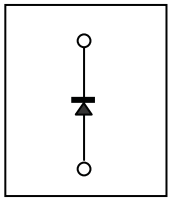
●**Dimensions** (Unit : mm)



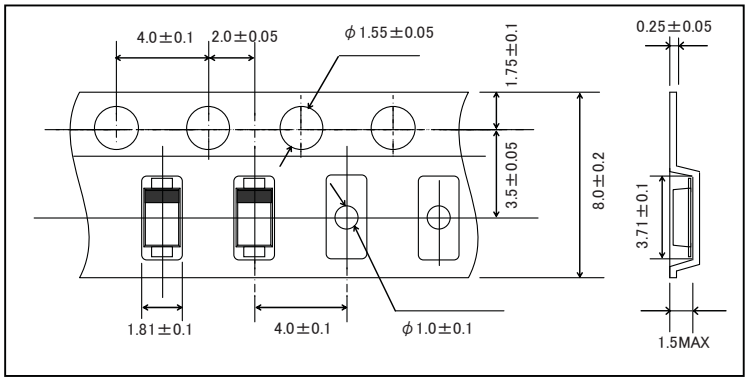

●**Land size figure** (Unit : mm)




●**Structure**



●**Taping dimensions** (Unit : mm)




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

| Parameter | Symbol | Limits | Unit |
|---|---|---|---|
| Power dissipation | P | 1000 | mW |
| Junction temperature | Tj | 150 | ℃ |
| Storage temperature | Tstg | -55 to +150 | ℃ |

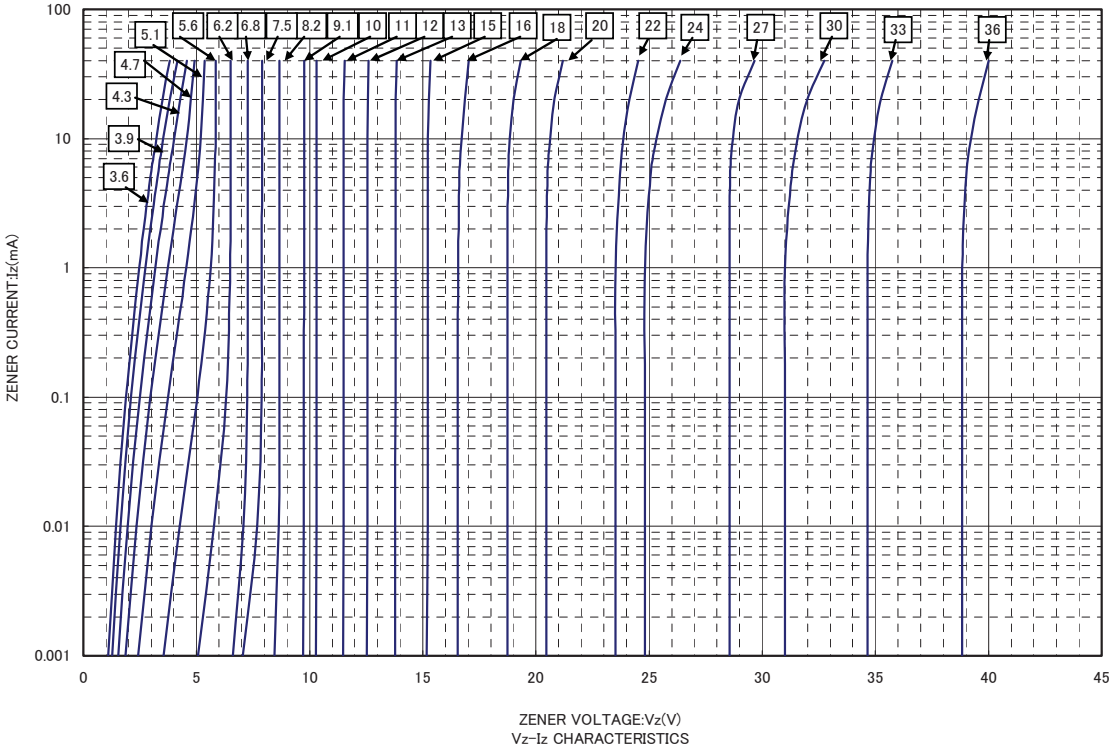
●**Electrical characteristics** (Ta=25°C)

| TYP. | Symbol | | | | | |
|---|---|---|---|---|---|---|
| | Zener voltage: Vz(V) | | | | Reverse current: IR(μA) | |
| | MIN. | TYP. | MAX. | Iz(mA) | MAX. | VR(V) |
| KDZ 3.6B | 3.600 | 3.813 | 4.000 | 40 | 60 | 1.0 |
| KDZ 3.9B | 3.900 | 4.136 | 4.400 | 40 | 40 | 1.0 |
| KDZ 4.3B | 4.300 | 4.572 | 4.800 | 40 | 20 | 1.0 |
| KDZ 4.7B | 4.700 | 4.924 | 5.200 | 40 | 20 | 1.0 |
| KDZ 5.1B | 5.100 | 5.368 | 5.700 | 40 | 20 | 1.0 |
| KDZ 5.6B | 5.600 | 5.856 | 6.300 | 40 | 20 | 1.5 |
| KDZ 6.2B | 6.200 | 6.509 | 7.000 | 40 | 20 | 3.0 |
| KDZ 6.8B | 6.800 | 7.280 | 7.700 | 40 | 20 | 3.5 |
| KDZ 7.5B | 7.500 | 7.889 | 8.400 | 40 | 20 | 4.0 |
| KDZ 8.2B | 8.200 | 8.655 | 9.300 | 40 | 20 | 5.0 |
| KDZ 9.1B | 9.100 | 9.747 | 10.200 | 40 | 20 | 6.0 |
| KDZ 10B | 10.000 | 10.310 | 11.200 | 40 | 10 | 7.0 |
| KDZ 11B | 11.000 | 11.510 | 12.300 | 20 | 10 | 8.0 |
| KDZ 12B | 12.000 | 12.500 | 13.500 | 20 | 10 | 9.0 |
| KDZ 13B | 13.300 | 13.820 | 15.000 | 20 | 10 | 10.0 |
| KDZ 15B | 14.700 | 15.350 | 16.500 | 20 | 10 | 11.0 |
| KDZ 16B | 16.200 | 16.860 | 18.300 | 20 | 10 | 12.0 |
| KDZ 18B | 18.000 | 19.000 | 20.300 | 20 | 10 | 13.0 |
| KDZ 20B | 20.000 | 20.820 | 22.400 | 20 | 10 | 15.0 |
| KDZ 22B | 22.000 | 23.850 | 24.500 | 10 | 10 | 17.0 |
| KDZ 24B | 24.000 | 25.310 | 27.600 | 10 | 10 | 19.0 |
| KDZ 27B | 27.000 | 28.700 | 30.800 | 10 | 10 | 21.0 |
| KDZ 30B | 30.000 | 31.570 | 34.000 | 10 | 10 | 23.0 |
| KDZ 33B | 33.000 | 34.950 | 37.000 | 10 | 10 | 25.0 |
| KDZ 36B | 36.000 | 39.240 | 40.000 | 10 | 10 | 27.0 |

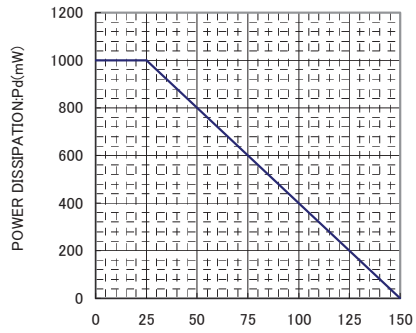
※The Zener voltage (Vz) is measured 40ms after power is supplied.

●**Marking** (TYPE NO.)

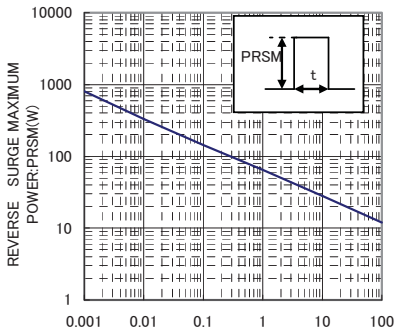
| TYPE | TYPE NO. | TYPE | TYPE NO. |
|---|---|---|---|
| KDZ 3.6B | GB | KDZ 12B | VB |
| KDZ 3.9B | HB | KDZ 13B | WB |
| KDZ 4.3B | JB | KDZ 15B | XB |
| KDZ 4.7B | KB | KDZ 16B | YB |
| KDZ 5.1B | LB | KDZ 18B | ZB |
| KDZ 5.6B | MB | KDZ 20B | AD |
| KDZ 6.2B | NB | KDZ 22B | BD |
| KDZ 6.8B | PB | KDZ 24B | CD |
| KDZ 7.5B | QB | KDZ 27B | DD |
| KDZ 8.2B | RB | KDZ 30B | ED |
| KDZ 9.1B | SB | KDZ 33B | FD |
| KDZ 10B | TB | KDZ 36B | GD |
| KDZ 11B | UB | | |



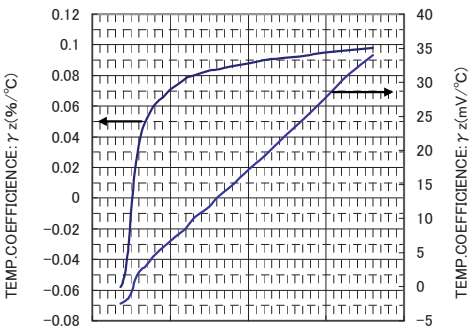

Vz–Iz CHARACTERISTICS



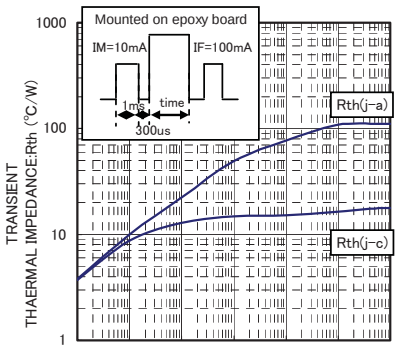

Pd–Ta CHARACTERISTICS




PRSM–TIME CHARACTERISTICS

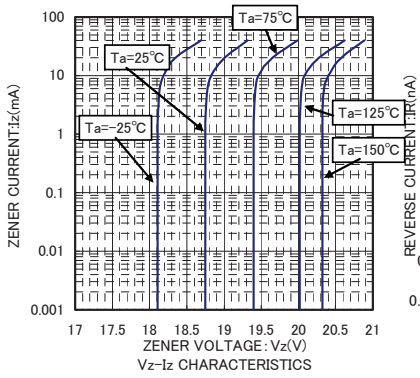



γz–Vz CHARACTERISTICS

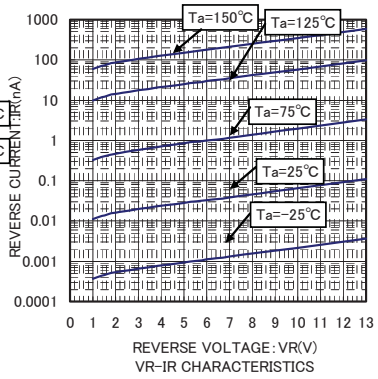



Rth–t CHARACTERISTICS

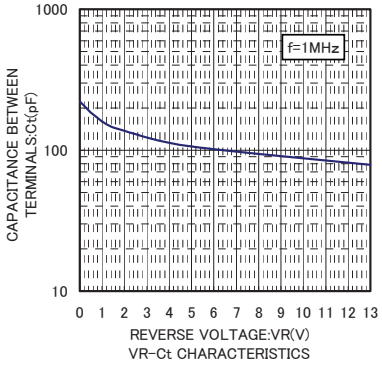
●**Electrical characteristic curves** (Ta=25°C)



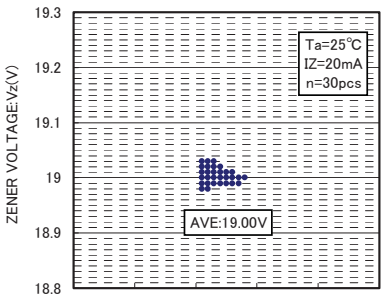
Vz-Iz CHARACTERISTICS



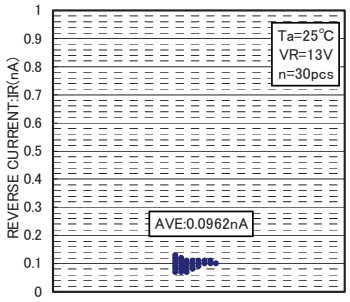
VR-IR CHARACTERISTICS



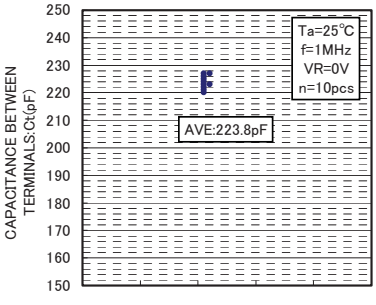
VR-Ct CHARACTERISTICS



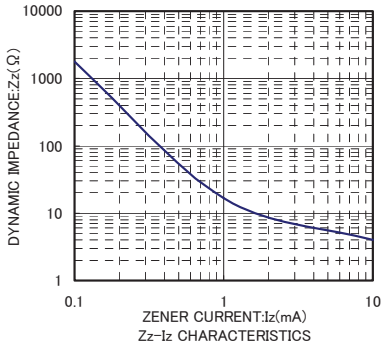
Vz DISPERSION MAP



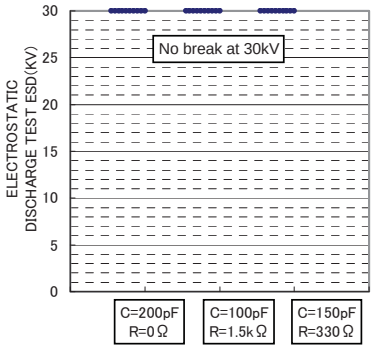
IR DISPERSION MAP



Ct DISPERSION MAP



Zz-Iz CHARACTERISTICS



ESD DISPERSION MAP

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