

# Zener diode

## UDZS16B

### ●Applications

Constant voltage control

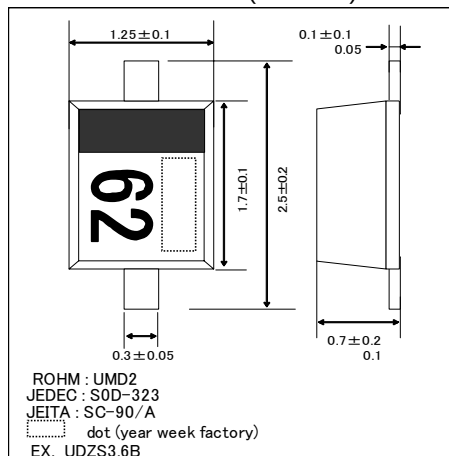
### ●Features

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

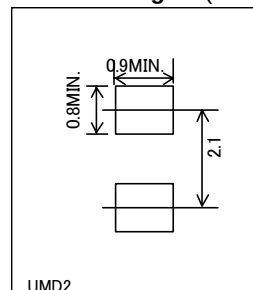
### ●Construction

Silicon epitaxial planar

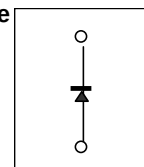
### ●External dimensions (Unit : mm)



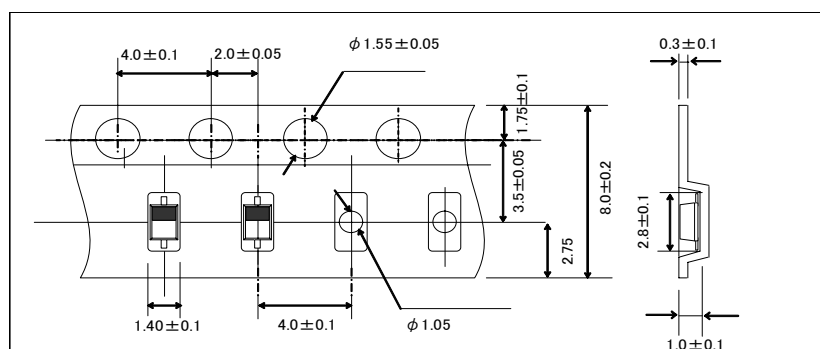
### ●Land size figure (Unit : mm)



### ●Structure



### ●Taping specifications (Unit : mm)



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

| Parameter             | Symbol | Limits      | Unit |
|-----------------------|--------|-------------|------|
| Power dissipation     | P      | 200         | mW   |
| Junction temperature  | Tj     | 150         | °C   |
| Storage temperature   | Tstg   | -55 to +150 | °C   |
| Operating temperature | Topr   | -55 to +150 | °C   |

## Diodes

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

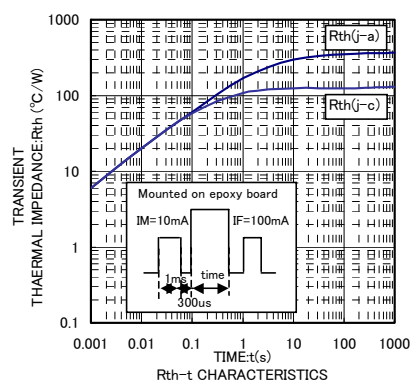
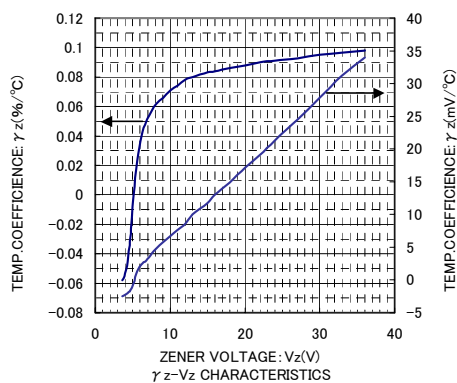
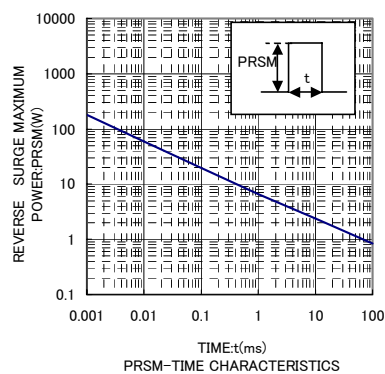
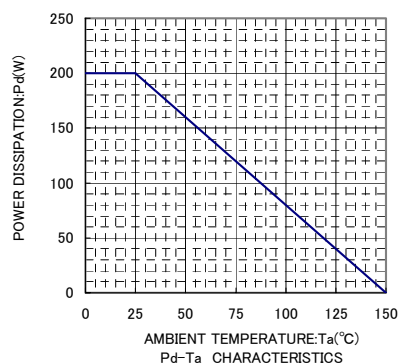
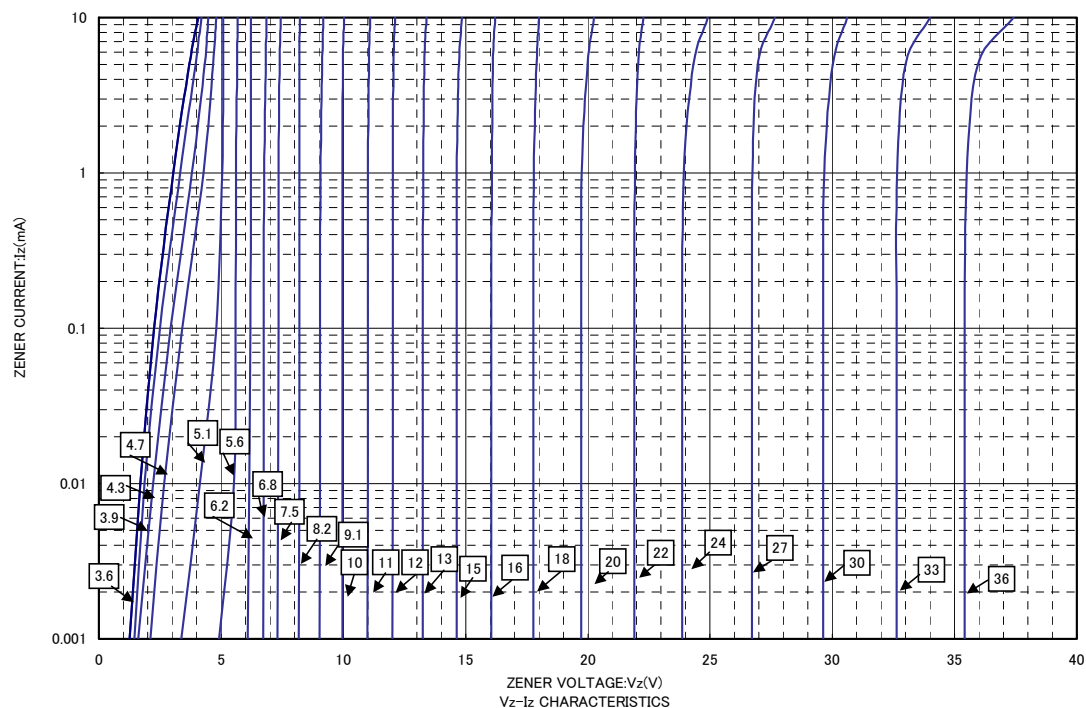
| TYP.      | Symbol                |        |        |                              |        |                                     |        |                          |       |
|-----------|-----------------------|--------|--------|------------------------------|--------|-------------------------------------|--------|--------------------------|-------|
|           | Zener voltage : Vz(V) |        |        | Operating resistance : Zz(Ω) |        | Rising operating resistance : Zz(Ω) |        | Reverse current : IR(μA) |       |
|           | 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    | 1000.0                              | 1.0    | 10.0                     | 1.0   |
| UDZS 3.9B | 3.890                 | 4.160  | 5.0    | 100                          | 5.0    | 1000.0                              | 1.0    | 5.0                      | 1.0   |
| UDZS 4.3B | 4.170                 | 4.430  | 5.0    | 100                          | 5.0    | 1000.0                              | 1.0    | 5.0                      | 1.0   |
| UDZS 4.7B | 4.550                 | 4.750  | 5.0    | 100                          | 5.0    | 800.0                               | 0.5    | 2.0                      | 1.0   |
| UDZS 5.1B | 4.980                 | 5.200  | 5.0    | 80                           | 5.0    | 500.0                               | 0.5    | 2.0                      | 1.5   |
| UDZS 5.6B | 5.490                 | 5.730  | 5.0    | 60                           | 5.0    | 200.0                               | 0.5    | 1.0                      | 2.5   |
| UDZS 6.2B | 6.060                 | 6.330  | 5.0    | 60                           | 5.0    | 100.0                               | 0.5    | 1.0                      | 3.0   |
| UDZS 6.8B | 6.650                 | 6.930  | 5.0    | 40                           | 5.0    | 60.0                                | 0.5    | 0.5                      | 3.5   |
| UDZS 7.5B | 7.280                 | 7.600  | 5.0    | 30                           | 5.0    | 60.0                                | 0.5    | 0.5                      | 4.0   |
| UDZS 8.2B | 8.020                 | 8.360  | 5.0    | 30                           | 5.0    | 60.0                                | 0.5    | 0.5                      | 5.0   |
| UDZS 9.1B | 8.850                 | 9.230  | 5.0    | 30                           | 5.0    | 60.0                                | 0.5    | 0.5                      | 6.0   |
| UDZS 10B  | 9.770                 | 10.210 | 5.0    | 30                           | 5.0    | 60.0                                | 0.5    | 0.1                      | 7.0   |
| UDZS 11B  | 10.760                | 11.220 | 5.0    | 30                           | 5.0    | 60.0                                | 0.5    | 0.1                      | 8.0   |
| UDZS 12B  | 11.740                | 12.240 | 5.0    | 30                           | 5.0    | 80.0                                | 0.5    | 0.1                      | 9.0   |
| UDZS 13B  | 12.910                | 13.490 | 5.0    | 37                           | 5.0    | 80.0                                | 0.5    | 0.1                      | 10.0  |
| UDZS 15B  | 14.340                | 14.980 | 5.0    | 42                           | 5.0    | 80.0                                | 0.5    | 0.1                      | 11.0  |
| UDZS 16B  | 15.850                | 16.510 | 5.0    | 50                           | 5.0    | 80.0                                | 0.5    | 0.1                      | 12.0  |
| UDZS 18B  | 17.560                | 18.350 | 5.0    | 65                           | 5.0    | 80.0                                | 0.5    | 0.1                      | 13.0  |
| UDZS 20B  | 19.520                | 20.390 | 5.0    | 85                           | 5.0    | 100.0                               | 0.5    | 0.1                      | 15.0  |
| UDZS 22B  | 21.540                | 22.470 | 5.0    | 100                          | 5.0    | 100.0                               | 0.5    | 0.1                      | 17.0  |
| UDZS 24B  | 23.720                | 24.780 | 5.0    | 120                          | 5.0    | 120.0                               | 0.5    | 0.1                      | 19.0  |
| UDZS 27B  | 26.190                | 27.530 | 5.0    | 150                          | 5.0    | 150.0                               | 0.5    | 0.1                      | 21.0  |
| UDZS 30B  | 29.190                | 30.690 | 5.0    | 200                          | 5.0    | 200.0                               | 0.5    | 0.1                      | 23.0  |
| UDZS 33B  | 32.150                | 33.790 | 5.0    | 250                          | 5.0    | 250.0                               | 0.5    | 0.1                      | 25.0  |
| UDZS 36B  | 35.070                | 36.870 | 5.0    | 300                          | 5.0    | 300.0                               | 0.5    | 0.1                      | 27.0  |

## ●Type No.

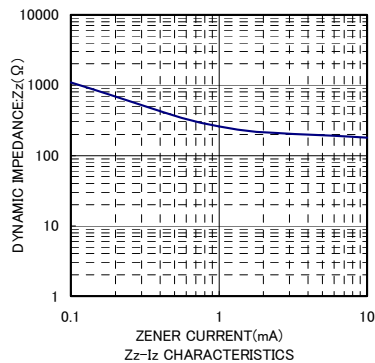
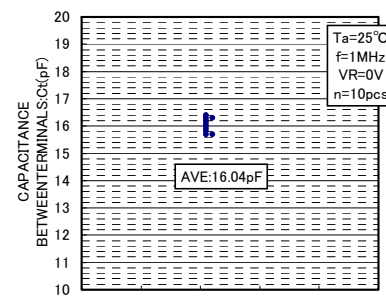
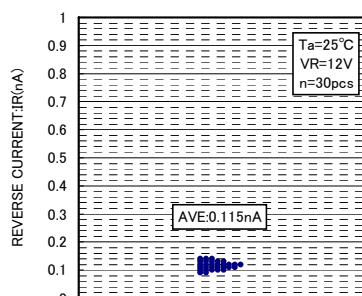
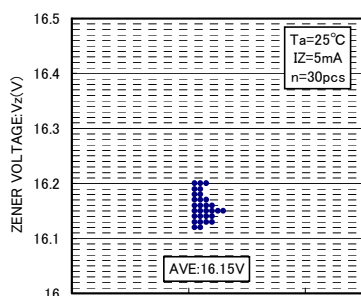
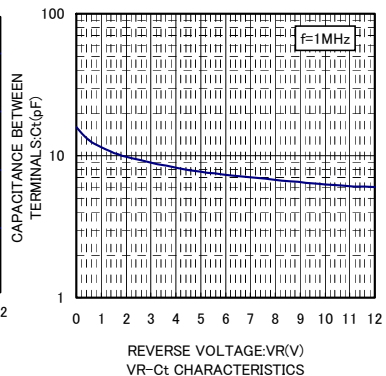
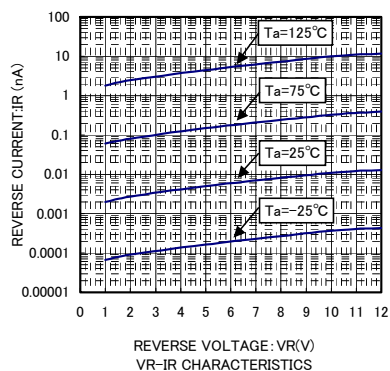
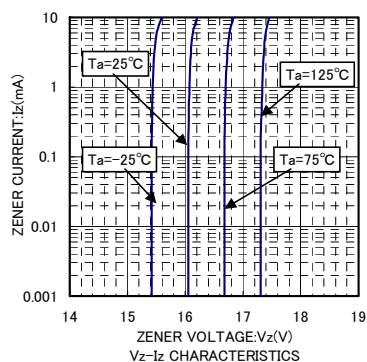
| TYPE      | TYPE NO. | TYPE     | TYPE NO. |
|-----------|----------|----------|----------|
| UDZS 3.6B | 62       | UDZS 12B | 25       |
| UDZS 3.9B | 72       | UDZS 13B | 35       |
| UDZS 4.3B | 82       | UDZS 15B | 45       |
| UDZS 4.7B | 92       | UDZS 16B | 55       |
| UDZS 5.1B | A2  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



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