

UMZ6.8N

Diodes

# Zener Diode

## UMZ6.8N

### ●Applications

Constant voltage control  
For the ESD measure of a signal line

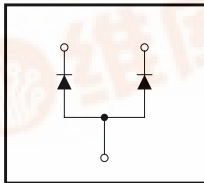
### ●Features

- 1) Small surface mounting type (UMD3)
- 2) Composite type with two cathode common elements
- 3) High reliability

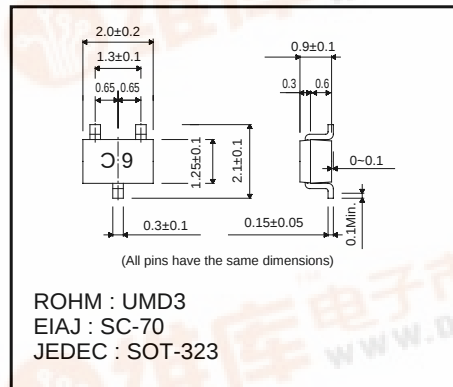
### ●Construction

Silicon epitaxial planar

### ●Circuit



### ●External dimensions (Units: 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~+150 | °C   |

\* Total of 2 elements

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

| Parameter                     | Symbol | Min. | Typ. | Max. | Unit | Conditions    |
|-------------------------------|--------|------|------|------|------|---------------|
| Zener voltage                 | Vz     | 6.47 | —    | 7.14 | V    | Iz=5mA        |
| Reverse current               | Ir     | —    | —    | 0.5  | μA   | VR=3.5V       |
| Operating resistance          | Zz     | —    | —    | 40   | Ω    | Iz=5mA        |
| Capacitance between terminals | Ct     | —    | 9    | —    | pF   | f=1MHz, VR=5V |

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●Others

| Item                 | Standard1                                                                                                      | IEC1000-4-2                                                              |
|----------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Device configuration | Charge/discharge capacitance : 200pF±10%<br>Discharge resistance : 400Ω ±10%                                   | Charge/discharge capacitance : 150pF<br>Discharge resistance : 330Ω      |
| Judgment contents    | 5 repetitions<br>No spark or smoke emitted : ±25kV<br>No element destruction : ±20kV<br>No malfunction : ± 8kV | 10 repetitions<br>No malfunction<br>Contact : ± 8kV<br>Suspended : ±15kV |

●Electrical characteristic curves (Ta=25°C)

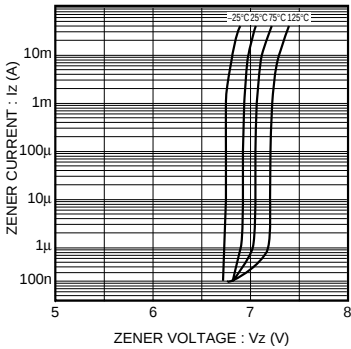


Fig.1 Zener voltage characteristic

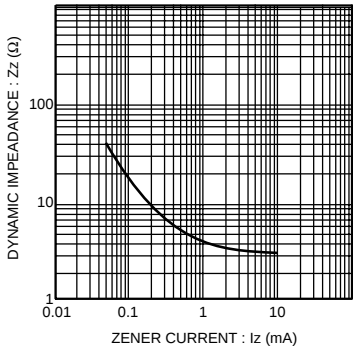


Fig.2 Operating resistance  
Zener current characteristic

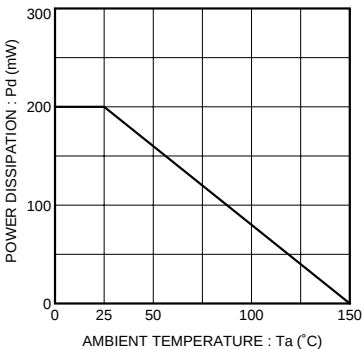


Fig.3 Derating curve