

# Zener diode

## UMZ12N

### ●Applications

Constant voltage control  
Noise suppression on single line

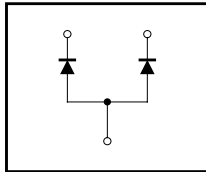
### ●Features

- 1) Small surface mounting type. (UMD3)
- 2) Multiple diodes with common anode configuration.
- 3) High reliability.

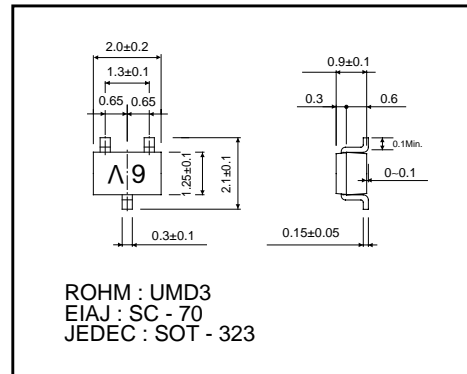
### ●Construction

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 | T <sub>j</sub>   | 150       | °C   |
| Storage temperature  | T <sub>stg</sub> | -55--+150 | °C   |

\* Total of 2 elements

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

| Parameter                   | Symbol          | Min. | Max. | Unit | Conditions            |
|-----------------------------|-----------------|------|------|------|-----------------------|
| Zener voltage               | V <sub>z</sub>  | 11.0 | 13.0 | V    | I <sub>z</sub> =5mA   |
| Reverse current             | I <sub>R</sub>  | —    | 0.10 | μA   | V <sub>R</sub> =9V    |
| Operating resistance        | Z <sub>z</sub>  | —    | 30   | Ω    | I <sub>z</sub> =5mA   |
| Rising operating resistance | Z <sub>zk</sub> | —    | 80   | Ω    | I <sub>z</sub> =0.5mA |

Diodes

● Electrical characteristic curves (Ta=25°C)

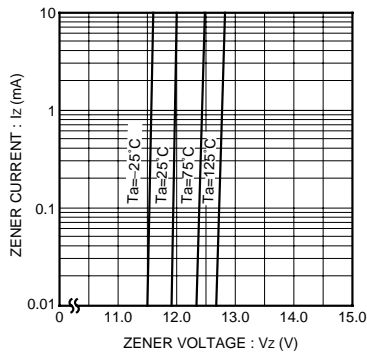


Fig.1 Zener voltage characteristics

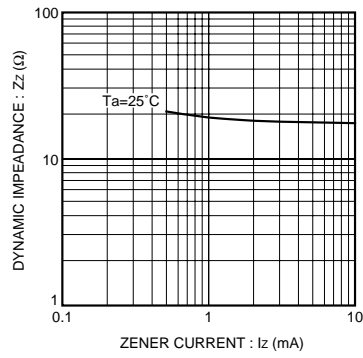


Fig.2 Operating resistance Zener current characteristics

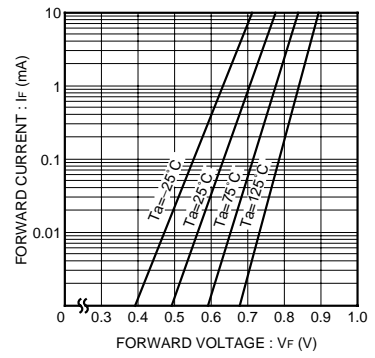


Fig.3 Forward characteristics

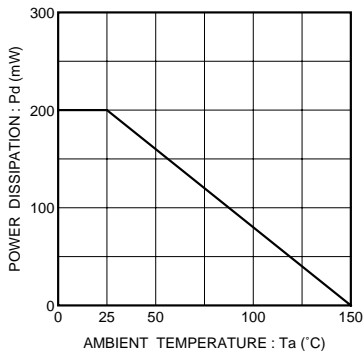


Fig.4 Derating curve

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