

# ESD Protection diode

## RSA 6.1EN

### ●Application

Noise suppression on signal line

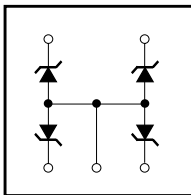
### ●Features

- 1) Small surface mounting type. (UMD5)
- 2) Multiple diodes with common anode configuration.
- 3) High reliability.

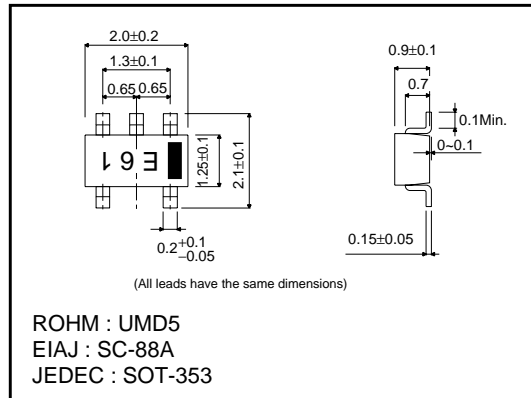
### ●Construction

Silicon epitaxial planar

### ●Circuit



### ●External dimensions (Units : mm)



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

| Parameter                         | Symbol | Limits   | Unit |
|-----------------------------------|--------|----------|------|
| Peak Pulse Power-1 (tp=10×1000μs) | Ppk    | 30       | W    |
| Peak Pulse Power-2 (tp=8×20μs)    | Ppk    | 200      | W    |
| Power Dissipation                 | P      | 200      | mW   |
| Junction temperature              | Tj     | 150      | °C   |
| Storage temperature               | Tstg   | -55~+150 | °C   |

### ●Electrical characteristics (Ta=25°C) \* Rating of per diode.

| Parameter            | Symbol | Min. | Typ. | Max. | Unit | Conditions    |
|----------------------|--------|------|------|------|------|---------------|
| Zener voltage        | Vz     | 6.10 | —    | 7.20 | V    | Iz=1mA        |
| Reverse current      | IR     | —    | —    | 1    | μA   | VR=3.0V       |
| Forward current      | VF     | —    | —    | 1.25 | V    | IF=200mA      |
| Junction capacitance | Ct     | —    | 90   | —    | pF   | VR=0V, f=1MHz |

\* Zener voltage (Vz) shall be measured at 40ms after loading current.

Diodes

●Others

| Item                  | IEC-61000-4-2  |
|-----------------------|--|
| Equipment composition | Charge discharge capacitance : 150pF<br>Discharge resistance : 330Ω              |
| Criterion             | Repeat by 10 times<br>No erroneous operation<br>Contact : ±9kV<br>In air : ±16kV |

●Electrical characteristic curves (Ta=25°C)

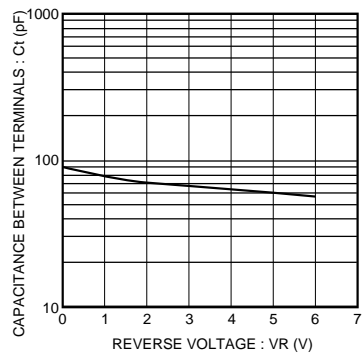


Fig.1 Capacitance Between Terminals Characteristics

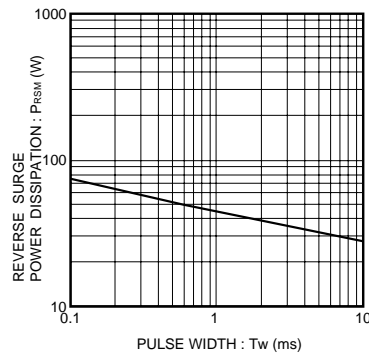


Fig.2 Surge Power Dissipation