

# MALS068X

## Silicon planar type

For constant voltage and surge absorption circuits

### ■ Features

- Bi-directional and high electrostatic discharge ESD
- Small terminal capacitance  $C_t$

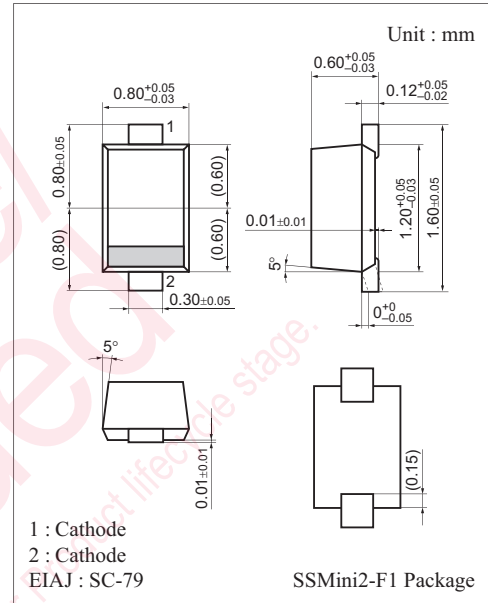
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                       | Symbol    | Rating      | Unit             |
|---------------------------------|-----------|-------------|------------------|
| Repetitive peak forward current | $I_{FRM}$ | 200         | mA               |
| Total power dissipation *1      | $P_T$     | 150         | mW               |
| Junction temperature            | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature             | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |
| Electrostatic discharge *2      | ESD       | $\pm 15$    | kV               |

Note) \*1:  $P_T = 150$  mW achieved with a printed circuit board.

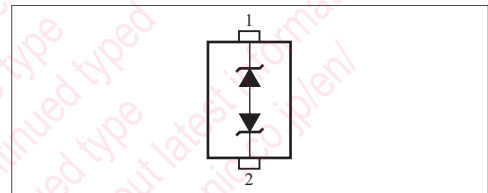
\*2: Test method: IEC61000-4-2

( $C = 150$  pF,  $R = 330\ \Omega$ , Contact discharge: 10 times)



Marking Symbol: RX

Internal Connection



### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter                  | Symbol | Conditions               | Min | Typ | Max | Unit     |
|----------------------------|--------|--------------------------|-----|-----|-----|----------|
| Zener voltage *            | $V_Z$  | $I_Z = 5$ mA             | 6.5 | 7.0 | 7.5 | V        |
| Zener operating resistance | $R_Z$  | $I_Z = 5$ mA             |     |     | 20  | $\Omega$ |
| Reverse current            | $I_R$  | $V_R = 4.0$ V            |     |     | 50  | nA       |
| Terminal capacitance       | $C_t$  | $V_R = 0$ V, $f = 1$ MHz |     | 15  |     | pF       |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. The temperature must be controlled  $25^\circ\text{C}$  for  $V_Z$  measurement.

$V_Z$  value measured at other temperature must be adjusted to  $V_Z (25^\circ\text{C})$

3. \*:  $V_Z$  guaranteed 20 ms after current flow.

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