

# MAZW000H Series

## Silicon planar type

For surge absorption circuit

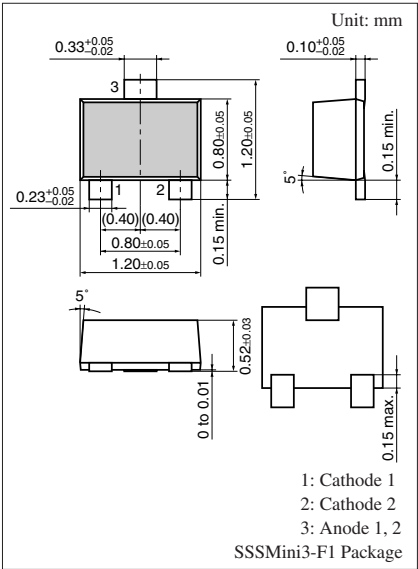
### ■ Features

- Two elements anode-common type
- SSS-Mini type 3-pin package

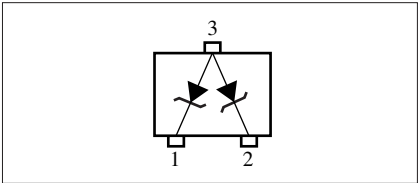
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                 | Symbol           | Rating      | Unit             |
|---------------------------|------------------|-------------|------------------|
| Total power dissipation * | $P_{\text{tot}}$ | 150         | mW               |
| Junction temperature      | $T_j$            | 150         | $^\circ\text{C}$ |
| Storage temperature       | $T_{\text{stg}}$ | -55 to +150 | $^\circ\text{C}$ |

Note) \*:  $P_{\text{tot}} = 150 \text{ mW}$  achieved with a printed circuit board.



Internally connected circuit



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

| Parameter                       | Symbol   | Conditions            | Min | Typ | Max | Unit          |
|---------------------------------|----------|-----------------------|-----|-----|-----|---------------|
| Zener voltage *                 | $V_Z$    | $I_Z$ Specified value |     |     |     | V             |
| Zener rise operating resistance | $R_{ZK}$ | $I_Z$ Specified value |     |     |     | $\Omega$      |
| Zener operating resistance      | $R_Z$    | $I_Z$ Specified value |     |     |     | $\Omega$      |
| Reverse current                 | $I_R$    | $V_R$ Specified value |     |     |     | $\mu\text{A}$ |

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

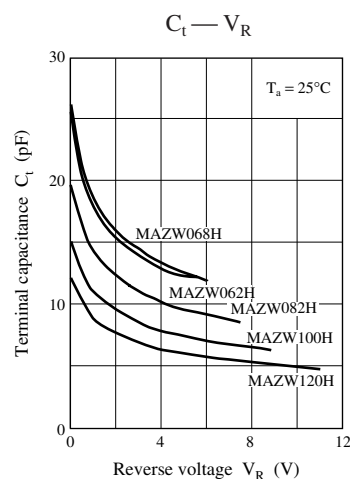
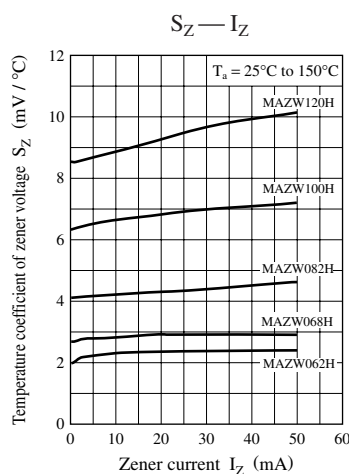
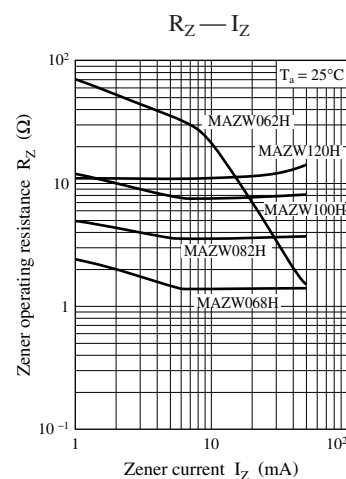
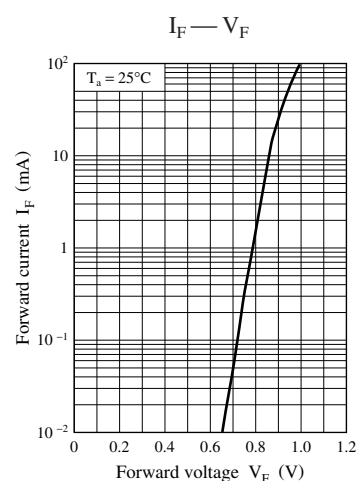
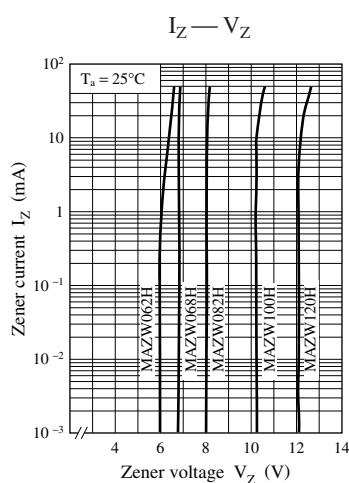
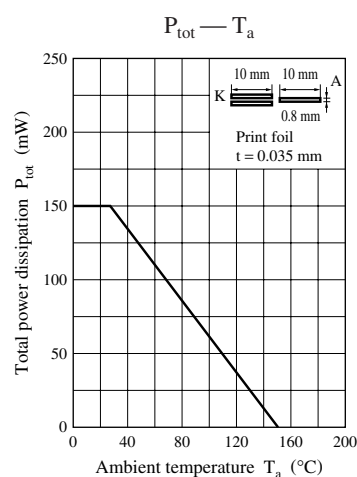
2. Electrostatic breakdown voltage is  $\pm 10 \text{ kV}$   
Test method: IEC1000-4-2 (C = 150 pF, R = 330  $\Omega$ , Contact discharge: 10 times)
3. \*: The temperature must be controlled  $25^\circ\text{C}$  for  $V_Z$  measurement.  
 $V_Z$  value measured at other temperature must be adjusted to  $V_Z (25^\circ\text{C})$   
 $V_Z$  guaranteed 20 ms after current flow.

■ Electrical characteristics within part numbers  $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Part number | Zener voltage |      |      |            | Reverse current (DC)    |           | Zener operating resistance |                              | Marking symbol |
|-------------|---------------|------|------|------------|-------------------------|-----------|----------------------------|------------------------------|----------------|
|             | $V_Z$ (V)     |      |      |            | $I_R$ ( $\mu\text{A}$ ) |           | $R_Z$ ( $\Omega$ )         | $R_{ZK}$ ( $\Omega$ )        |                |
|             | Min           | Nom  | Max  | $I_Z$ (mA) | Max                     | $V_R$ (V) | $I_Z = 5\text{ mA}$<br>Max | $I_Z = 0.5\text{ mA}$<br>Max |                |
| MAZW062H    | 5.8           | 6.2  | 6.6  | 5          | 0.2                     | 4         | 50                         | 100                          | 62             |
| MAZW068H    | 6.4           | 6.8  | 7.2  | 5          | 0.1                     | 4         | 30                         | 60                           | 68             |
| MAZW082H    | 7.7           | 8.2  | 8.7  | 5          | 0.1                     | 5         | 30                         | 60                           | 82             |
| MAZW100H    | 9.4           | 10.0 | 10.6 | 5          | 0.05                    | 7         | 30                         | 60                           | 10             |
| MAZW120H    | 11.4          | 12.0 | 12.7 | 5          | 0.05                    | 9         | 30                         | 60                           | 12             |

Note) 1. The  $V_Z$  value is the one after power application for 20 ms at  $T_a = 25^\circ\text{C}$ .

2. The zener voltage temperature coefficient is the one for  $T_j = 25^\circ\text{C}$  to  $150^\circ\text{C}$ .



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