## **MA3ZD120G**

### Silicon epitaxial planar type

For high speed switching

#### ■ Features

• Forward current (Average)  $I_{F(AV)} = 700$  mA rectification is possible

• Low forward voltage:  $V_F < 0.45 \text{ V}$ 

• High-density mounting is possible

#### Package

- Code SMini3-F2
- Pin Name
  - 1: Anode
  - 2: N.C.
  - 3: Cathode

#### ■ Absolute Maximum Ratings $T_a = 25$ °C

| Parameter                                    | Symbol             | Rating      | Unit |
|--|--------------------|-------------|------|
| Reverse voltage                              | $V_R$              | 20          | V    |
| Repetitive peak reverse voltage              | V <sub>RRM</sub>   | 25          | V    |
| Forward current (Average) *1                 | I <sub>F(AV)</sub> | 700         | mA   |
| Non-repetitive peak forward surge current *2 | $I_{FSM}$          | 2           | A    |
| Junction temperature                         | $T_{j}$            | 125         | °C , |
| Storage temperature                          | T <sub>stg</sub>   | -55 to +125 | °C   |

Note) \*1: Mounted on an alumina PC board

#### ■ Marking Symbol: M5E

Internal Connection



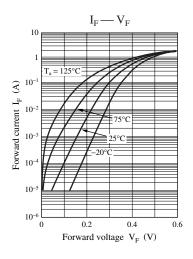
#### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

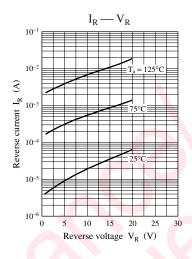
| Parameter             | Symbol          | Conditions                                   | Min | Тур | Max  | Unit |
|-----------------------|-----------------|--|-----|-----|------|------|
| Forward voltage       | $V_{\rm F}$     | $I_F = 700 \text{ mA}$                       | 190 |     | 0.45 | V    |
| Reverse current       | $I_R$           | $V_R = 20 \text{ V}$                         |     |     | 200  | μΑ   |
| Terminal capacitance  | $C_{t}$         | $V_R = 0 V, f = 1 MHz$                       |     | 100 |      | pF   |
| Reverse recovery time | t <sub>rr</sub> | $I_F = I_R = 100 \text{ mA}$                 |     | 7   |      | ns   |
|                       |                 | $I_{rr} = 10 \text{ mA}, R_{L} = 100 \Omega$ |     |     |      |      |

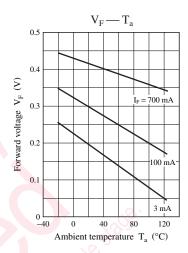
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

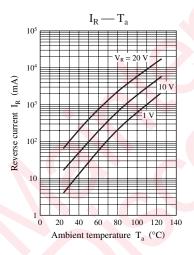
- 2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
- 3. Absolute frequency of input and output is 250 MHz.

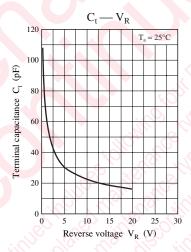
<sup>\*2:</sup> The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

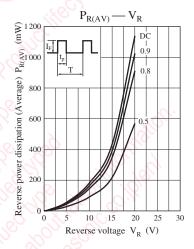


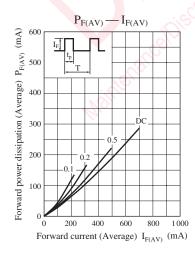


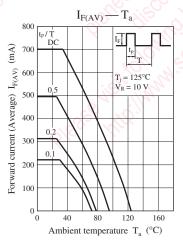




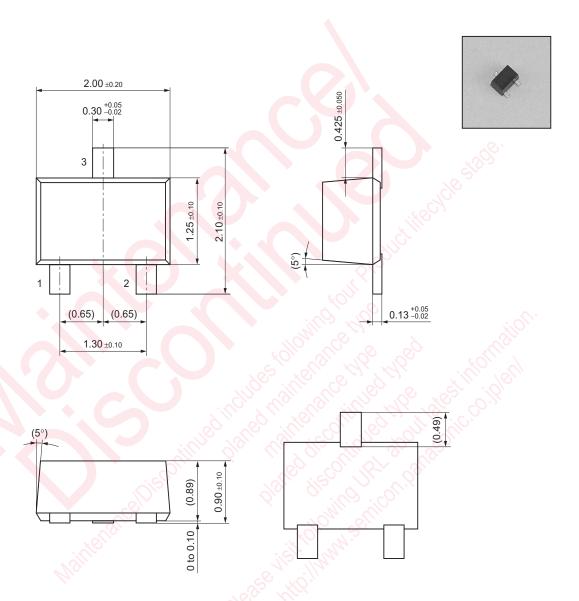








SMini3-F2 Unit: mm



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