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# **MAS3795EG**

## Silicon epitaxial planar type

For high-speed switching circuits

#### ■ Features

- High-density mounting is possible
- Optimum for high frequency rectification because of its short reverse recovery time (t<sub>rr</sub>)
- Forward voltage  $V_F$  optimum for low voltage rectification  $V_F = < 0.3 \text{ V}$  (at  $I_F = 1 \text{ mA}$ )

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

| Parameter                    |        | Symbol           | Rating      | Unit |  |  |  |
|------------------------------|--------|------------------|-------------|------|--|--|--|
| Reverse voltage              |        | $V_R$            | 30          | V    |  |  |  |
| Maximum peak reverse voltage |        | V <sub>RM</sub>  | 30          | V    |  |  |  |
| Forward current              | Single | $I_{\mathrm{F}}$ | 30          | mA   |  |  |  |
|                              | Double |                  | 20          |      |  |  |  |
| Peak forward current         | Single | $I_{FM}$         | 150         | mA   |  |  |  |
|                              | Double |                  | 110         | 101  |  |  |  |
| Junction temperature         |        | T <sub>j</sub>   | 125         | °C   |  |  |  |
| Storage temperature          |        | T <sub>stg</sub> | -55 to +125 | C C  |  |  |  |
|                              |        |                  |             |      |  |  |  |

### Package

- Code
  - SSSMini3-F2
- Pin Name
  - 1: Anode 1
  - 2: Anode 2
  - 3: Cathode 1, 2
- Marking Symbol: M3

#### ■ Internal Connection

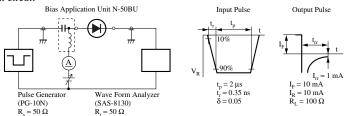


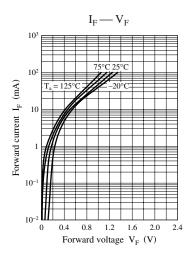
## ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

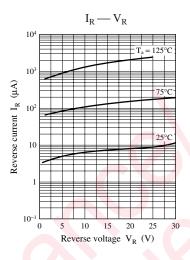
| Parameter               | Symbol          | Conditions                                       | Min | Тур | Max | Unit |
|-------------------------|-----------------|--|-----|-----|-----|------|
| Forward voltage         | $V_{Fl}$        | $I_F = 1 \text{ mA}$                             | 2   | 59  | 0.3 | V    |
|                         | $V_{\rm F2}$    | $I_F = 30 \text{ mA}$                            | 00) |     | 1.0 |      |
| Reverse current         | $I_R$           | $V_R = 30 \text{ V}$                             | 1., |     | 30  | μΑ   |
| Terminal capacitance    | $C_{t}$         | $V_R = 1 \text{ V, f} = 1 \text{ MHz}$           |     | 1.5 |     | pF   |
| Reverse recovery time * | t <sub>rr</sub> | $I_F = I_R = 10 \text{ mA}$                      |     | 1.0 |     | ns   |
| 10x                     |                 | $I_{rr} = 1 \text{ mA}, R_L = 100 \Omega$        |     |     |     |      |
| Detection efficiency    | η               | $V_{IN} = 3 V_{(peak)}$ , $f = 30 MHz$           |     | 65  |     | %    |
| Mo                      |                 | $R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$ |     |     |     |      |

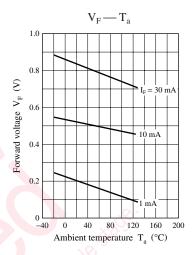
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

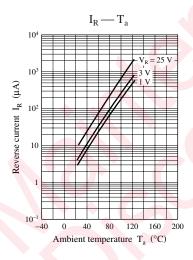
- This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
- 3. Absolute frequency of input and output is 2 GHz.
- 4.\*: t<sub>rr</sub> measurement circuit

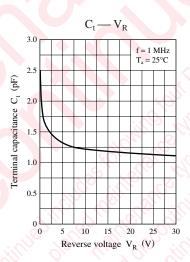








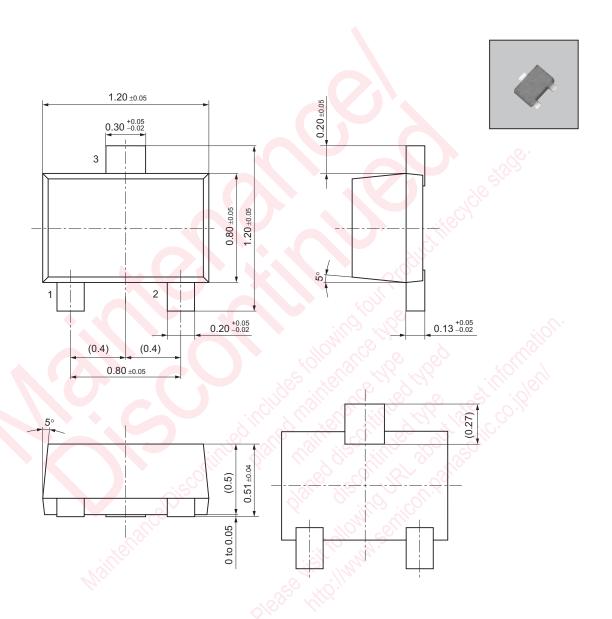




2 SKH00219AED

SSSMini3-F2

Unit: mm



SKH00219AED 3

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