

# MAS3795E

## 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 ( $t_{rr}$ )
- Low forward voltage  $V_F$  optimum for low voltage rectification  
 $V_F < 0.3 \text{ V}$  (at  $I_F = 1 \text{ mA}$ )
- SSS-Mini type 3-pin package

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

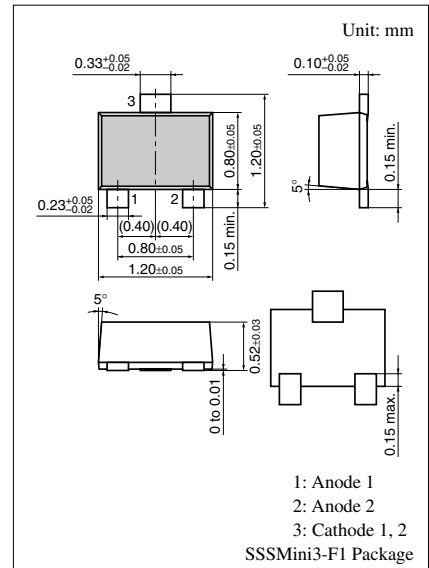
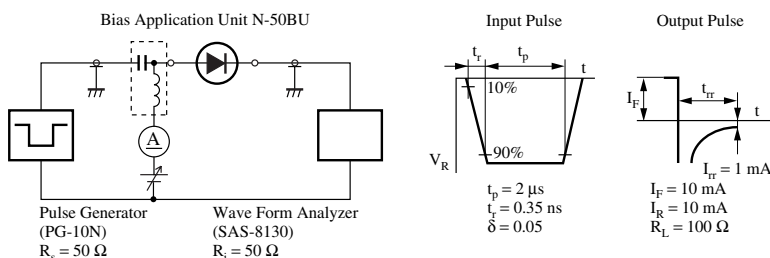
| Parameter            | Symbol    | Rating      | Unit             |
|----------------------|-----------|-------------|------------------|
| Reverse voltage (DC) | $V_R$     | 30          | V                |
| Peak reverse voltage | $V_{RM}$  | 30          | V                |
| Forward current (DC) | Single    | $I_F$       | 30               |
|                      | Double    |             | 20               |
| Peak forward current | Single    | $I_{FM}$    | 150              |
|                      | Double    |             | 110              |
| Junction temperature | $T_j$     | 125         | $^\circ\text{C}$ |
| Storage temperature  | $T_{stg}$ | -55 to +125 | $^\circ\text{C}$ |

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

| Parameter               | Symbol   | Conditions  | Min | Typ | Max | Unit          |
|-------------------------|----------|---|-----|-----|-----|---------------|
| Reverse current (DC)    | $I_R$    | $V_R = 30 \text{ V}$  |     |     | 30  | $\mu\text{A}$ |
| Forward voltage (DC)    | $V_{F1}$ | $I_F = 1 \text{ mA}$  |     |     | 0.3 | V             |
|                         | $V_{F2}$ | $I_F = 30 \text{ mA}$   |     |     | 1.0 |               |
| Terminal capacitance    | $C_t$    | $V_R = 1 \text{ V}, f = 1 \text{ MHz}$  |     | 1.5 |     | pF            |
| Reverse recovery time * | $t_{rr}$ | $I_F = I_R = 10 \text{ mA}$<br>$I_{rr} = 1 \text{ mA}, R_L = 100 \Omega$                                |     | 1.0 |     | ns            |
| Detection efficiency    | $\eta$   | $V_{in} = 3 \text{ V}_{(peak)}, f = 30 \text{ MHz}$<br>$R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$ |     | 65  |     | %             |

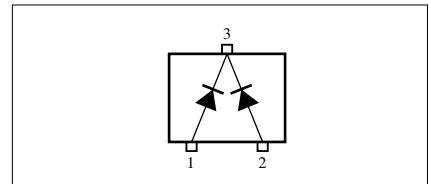
Note) 1. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

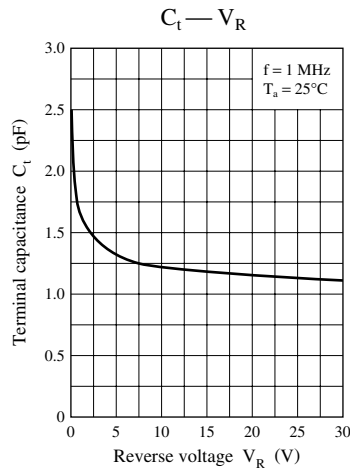
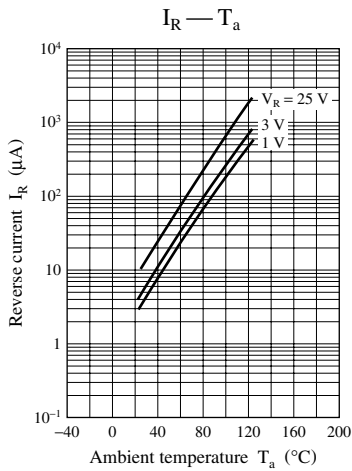
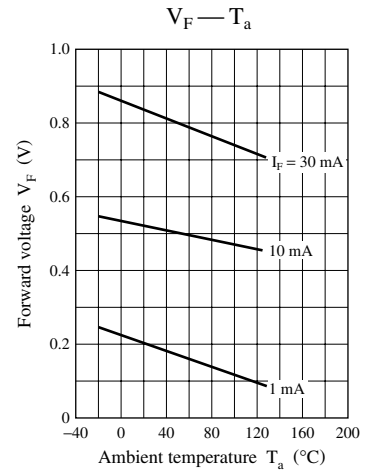
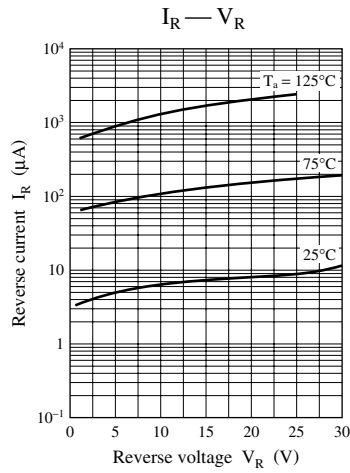
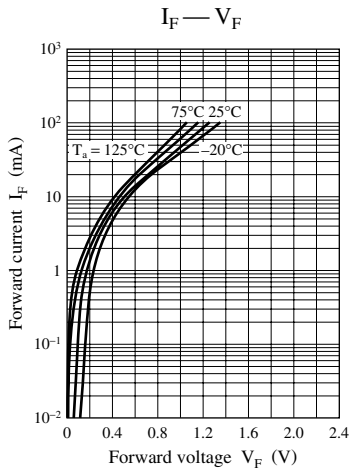
2. Rated input/output frequency: 2 GHz    3. \*:  $t_{rr}$  measuring instrument



Marking Symbol: M3

Internal Connection





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