

# MA4X713 (MA713)

Silicon epitaxial planar type

For switching

For wave detection

■ Features

- Two isolated elements are contained in one package, allowing high-density mounting
- Two MA3X704A (MA704A) is contained in one package (of a type in the same direction)
- Low forward voltage  $V_F$ , optimum for low voltage rectification
- Optimum for high frequency rectification because of its short reverse recovery time ( $t_{rr}$ )
- Mini type 4-pin package

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

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

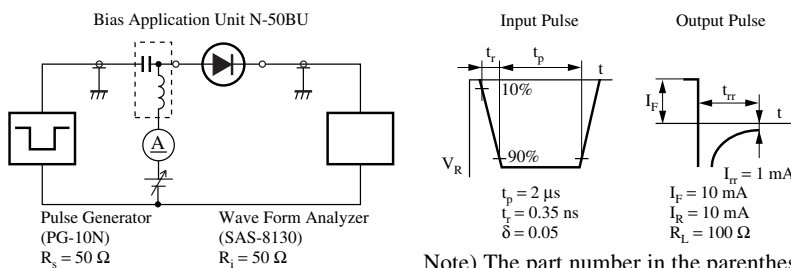
Note) \*: Value per chip

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

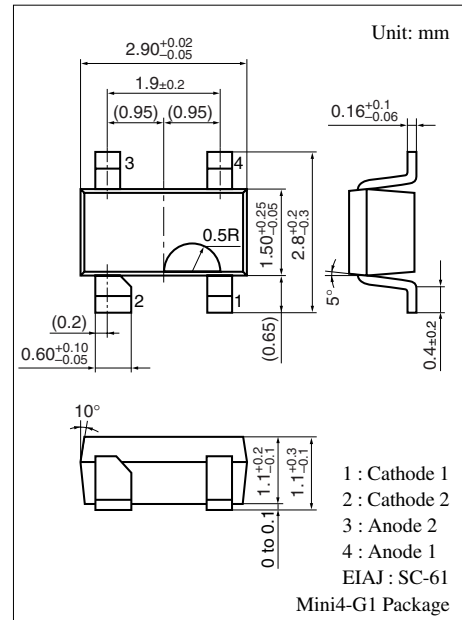
| Parameter               | Symbol   | Conditions  | Min | Typ | Max | Unit          |
|-------------------------|----------|---|-----|-----|-----|---------------|
| Reverse current (DC)    | $I_R$    | $V_R = 30\text{ V}$   |     |     | 1   | $\mu\text{A}$ |
| Forward voltage (DC)    | $V_{F1}$ | $I_F = 1\text{ mA}$   |     |     | 0.4 | V             |
|                         |          | $I_F = 30\text{ mA}$  |     |     | 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: 200 MHz 3. \*:  $t_{rr}$  measuring instrument

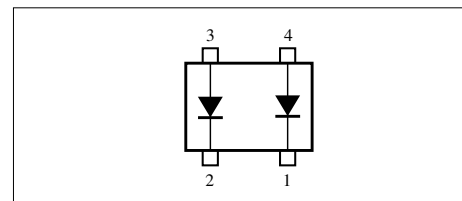


Note) The part number in the parenthesis shows conventional part number.

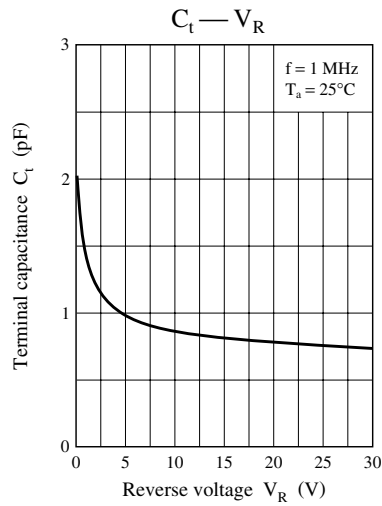
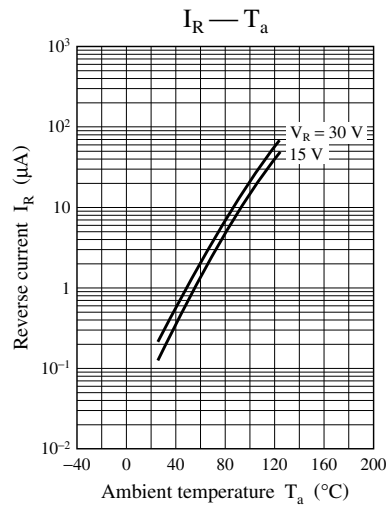
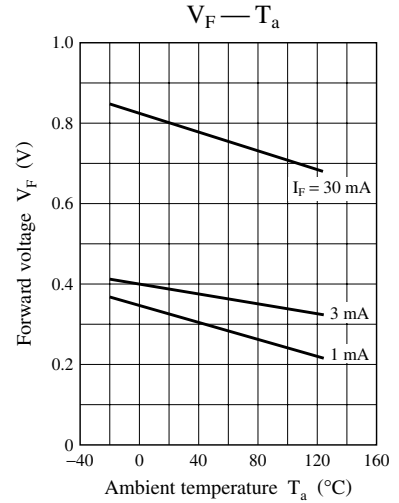
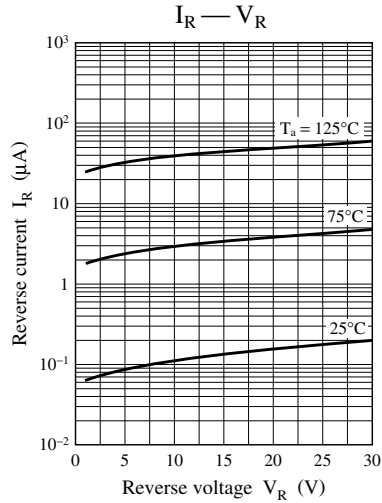
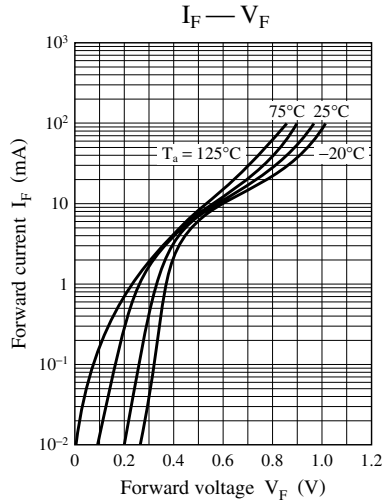


Marking Symbol: M1N

Internal Connection



Characteristics charts between pins 1 and 4, 2 and 3



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