

# MA4X714

## Silicon epitaxial planar type

For switching circuits

For wave detection circuit

### ■ Features

- Two MA3X704As are contained in one package (Two diodes in a different direction)
- Optimum for low-voltage rectification because of its low forward rise voltage ( $V_F$ )
- Optimum for high-frequency rectification because of its short reverse recovery time ( $t_{rr}$ )

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

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

Note) \* : Value per chip

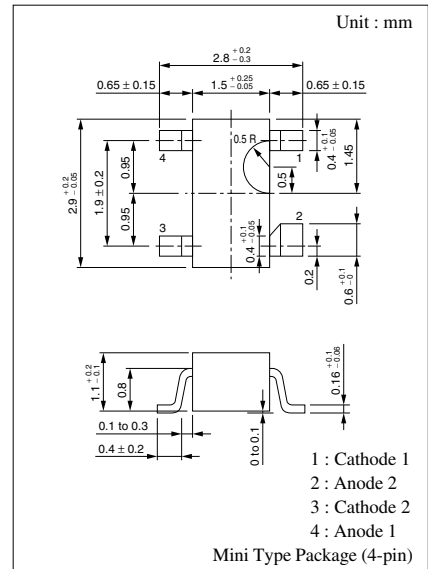
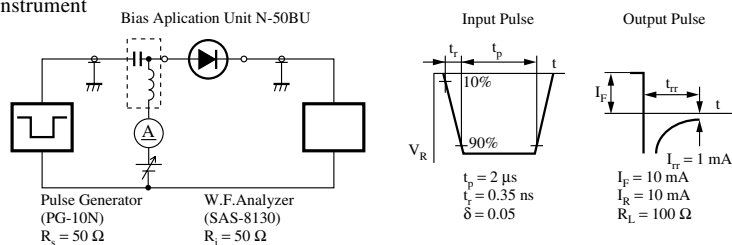
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| 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             |
|                        | $V_{F2}$ | $I_F = 30\text{ mA}$  |     |     | 1.0 | V             |
| 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. Schottky barrier diode 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: 2 000 MHz

3. \*:  $t_{rr}$  measuring instrument



Marking Symbol: M1P

Internal Connection

