

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 | 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 | $^\circ\text{C}$ |

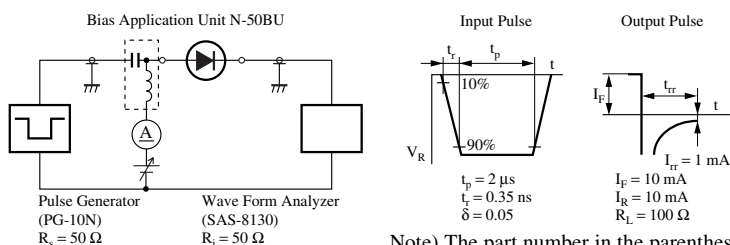
Note) *: Value per chip

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

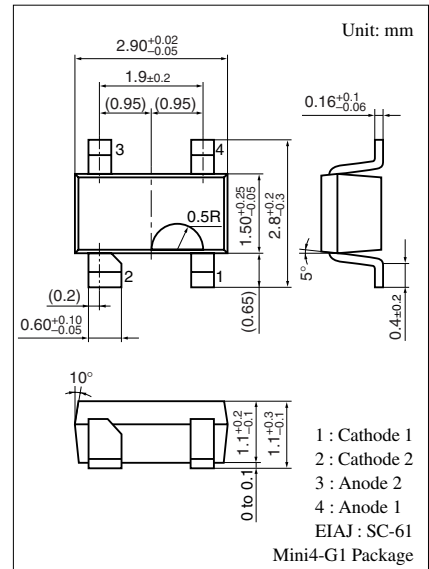
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|-------------------------|----------|---|-----|-----|-----|---------------|
| Reverse current (DC) | I_R | $V_R = 30\text{ V}$ | | | 1 | μA |
| Forward voltage (DC) | V_{F1} | $I_F = 1\text{ mA}$ | | | 0.4 | V |
| | V_{F2} | $I_F = 30\text{ mA}$ | | | 1.0 | |
| Terminal capacitance | C_t | $V_R = 1\text{ V}, f = 1\text{ MHz}$ | | 1.5 | | pF |
| Reverse recovery time * | t_{rr} | $I_F = I_R = 10\text{ mA}$ $I_{rr} = 1\text{ mA}, R_L = 100\ \Omega$ | | 1.0 | | ns |
| Detection efficiency | η | $V_{in} = 3\text{ V}_{(peak)}, f = 30\text{ MHz}$ $R_L = 3.9\text{ k}\Omega, C_L = 10\text{ pF}$ | | 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

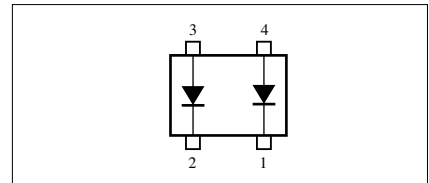


Note) The part number in the parenthesis shows conventional part number.

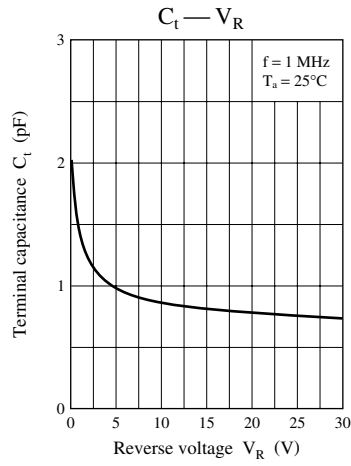
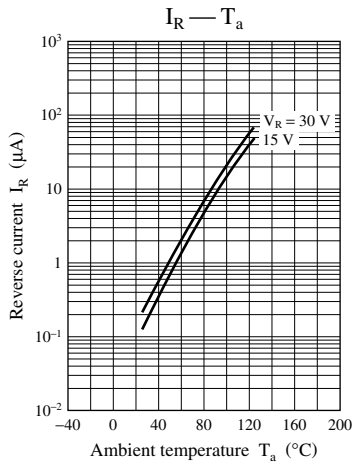
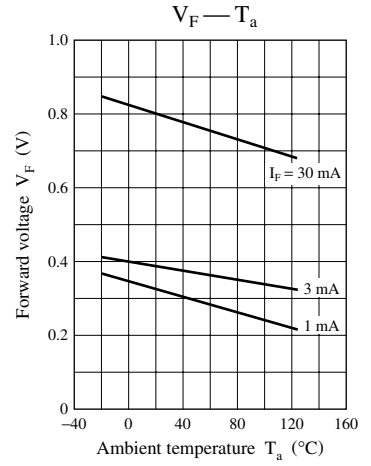
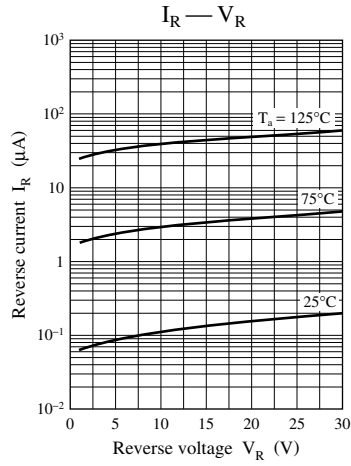
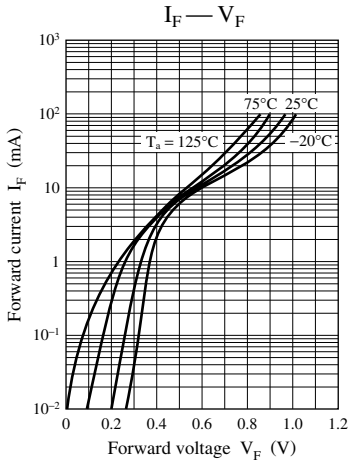


Marking Symbol: M1N

Internal Connection



Characteristics charts between pins 1 and 4, 2 and 3



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