# MA3X701 (MA10701)

### Silicon epitaxial planar type

For high-frequency rectification

#### Features

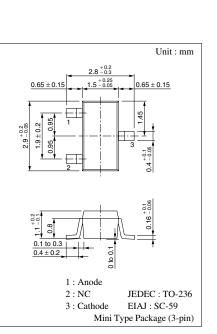
- Mini type 3-pin package
- Allowing to rectify under  $(I_{F(AV)} = 700 \text{ mA})$  condition

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

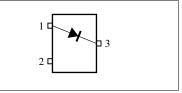
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V <sub>R</sub>	30	V
Repetitive peak reverse voltage	V <sub>RRM</sub>	30	V
Average forward current	I <sub>F(AV)</sub>	700	mA
Non-repetitive peak forward surge current*	I <sub>FSM</sub>	5	А
Junction temperature	Tj	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

Note) \* : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)

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



#### Marking Symbol: M4P Internal Connection

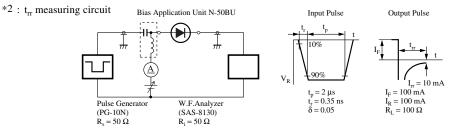


#### Parameter Symbol Conditions Min Unit Тур Max $V_{R} = 30 V$ Reverse current (DC) 80 $I_R$ μΑ Forward voltage (DC) V<sub>F</sub> $I_{Z} = 700 \text{ mA}$ 0.55 V $V_R = 0 V, f = 1 MHz$ pF Terminal capacitance Ct 120 Reverse recovery time\*2 $I_{F} = I_{R} = 100 \text{ mA}$ 7.5 t<sub>rr</sub> ns $I_{rr} = 10 \text{ mA}, R_L = 100 \Omega$ Thermal resistance (1) $R_{th}(j-a)(1)$ 420 °C/W Thermal resistance $(2)^{*1}$ °C/W 330 $R_{th}(j-a)(2)$

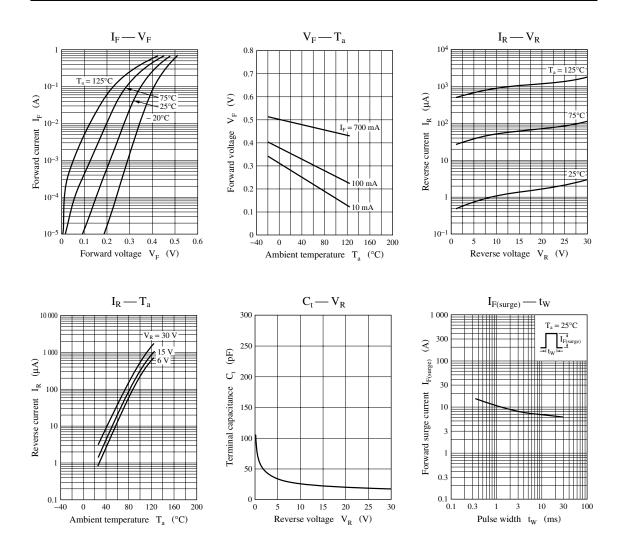
Note) 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

2. Rated input/output frequency: 400 MHz

3. \*1 : Obtained by fixing the element to the printed-circuit board (copper foil area 0.8 mm  $\times$  20 mm)



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



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