

# MA3X701 (MA10701)

## Silicon epitaxial planar type

For high frequency rectification

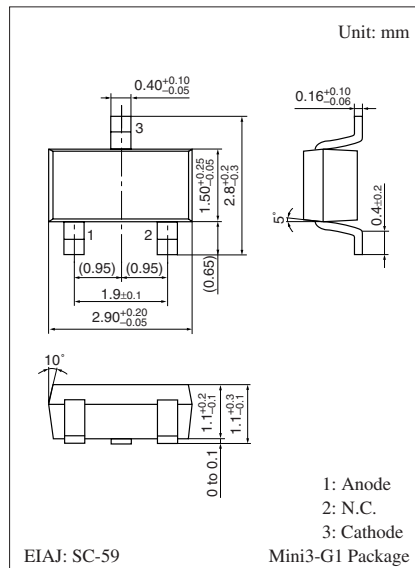
### ■ Features

- Forward current (Average)  $I_{F(AV)} = 700$  mA rectification is possible

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

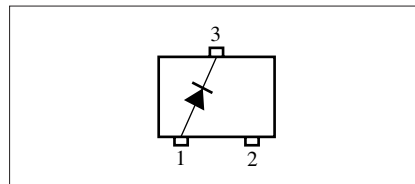
Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	30	V
Repetitive peak reverse voltage	$V_{RRM}$	30	V
Forward current (Average)	$I_{F(AV)}$	700	mA
Non-repetitive peak forward surge current *	$I_{FSM}$	5	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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



Marking Symbol: M4P

Internal Connection



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_Z = 700$ mA			0.55	V
Reverse current	$I_R$	$V_R = 30$ V			80	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		120		pF
Reverse recovery time *2	$t_{rr}$	$I_F = I_R = 100$ mA $I_{rr} = 10$ mA, $R_L = 100 \Omega$		7.5		ns
Thermal resistace (j-a)	$R_{th(j-a)1}$			420		$^\circ\text{C}/\text{W}$
	$R_{th(j-a)2}$ *1			330		$^\circ\text{C}/\text{W}$

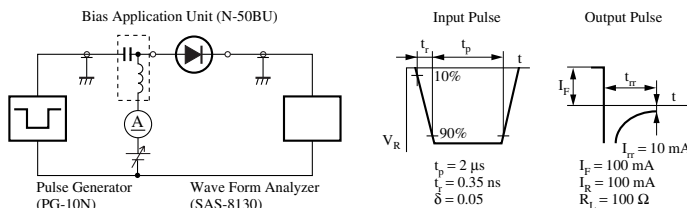
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. 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.

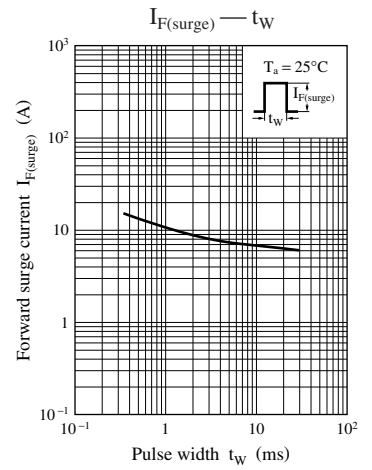
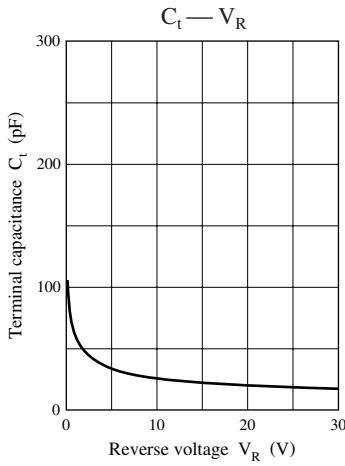
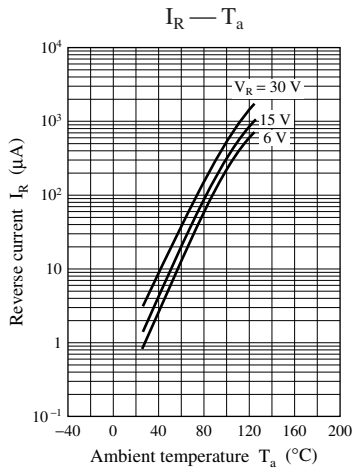
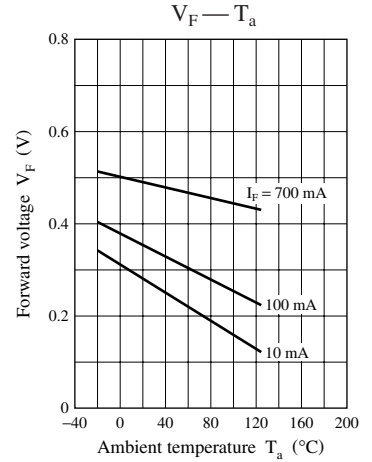
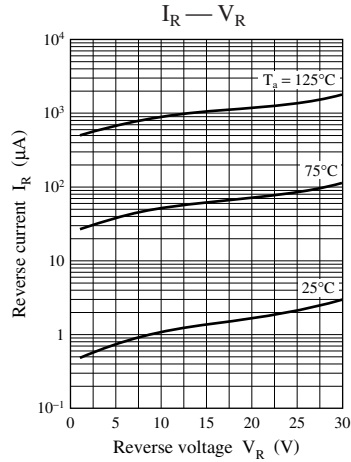
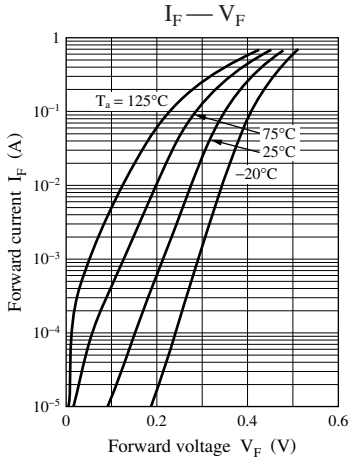
3. Absolute frequency of input and output is 400 MHz.

4. \*1: Guaranteed on the condition of soldered to PC board. (Cu foil 0.8 mm × 20 mm)

\*2:  $t_{rr}$  measurement circuit



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



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