

# MA3J700 (MA10700)

## Silicon epitaxial planar type

For high-frequency rectification

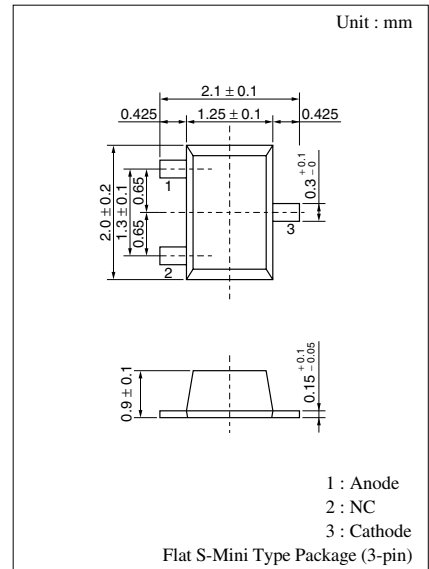
### ■ Features

- S-mini type 3-pin package
- Allowing to rectify under ( $I_{F(AV)} = 500$  mA) condition
- Optimum for high-frequency rectification because of its short reverse recovery time ( $t_{rr}$ )

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

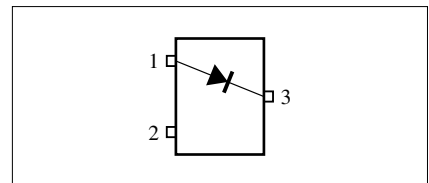
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	40	V
Repetitive peak reverse voltage	$V_{RRM}$	40	V
Average forward current	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current*	$I_{FSM}$	2	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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



Marking Symbol: M2W

Internal Connection



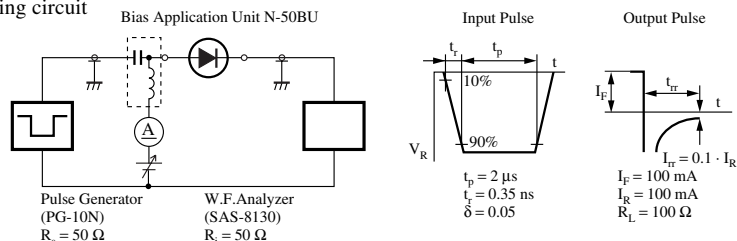
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_R$	$V_R = 35$ V			100	$\mu\text{A}$
Forward voltage (DC)	$V_F$	$I_F = 500$ mA			0.55	V
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		60		pF
Reverse recovery time*	$t_{rr}$	$I_F = I_R = 100$ mA $I_{rr} = 0.1 \cdot I_R$ , $R_L = 100 \Omega$		5		ns

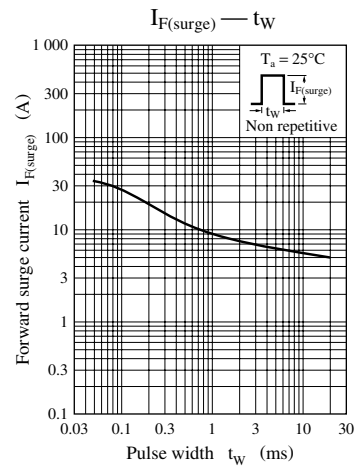
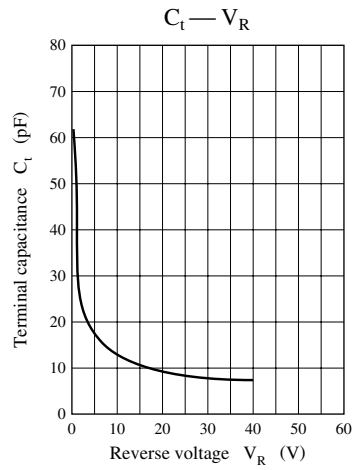
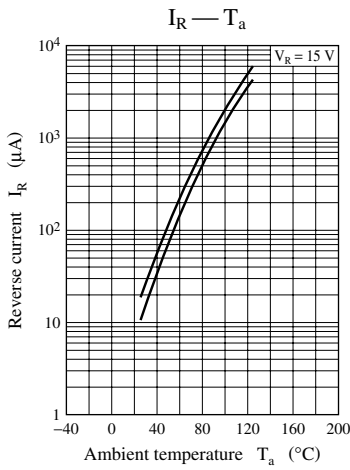
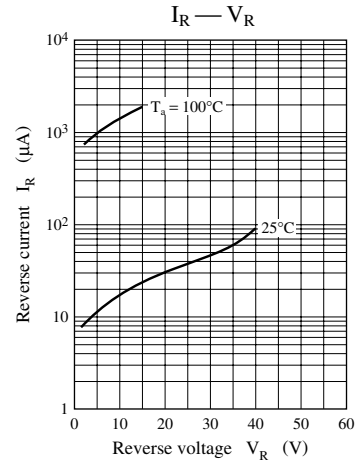
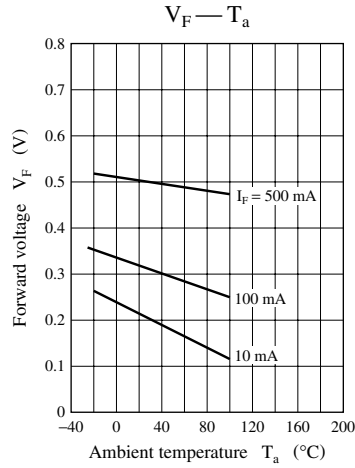
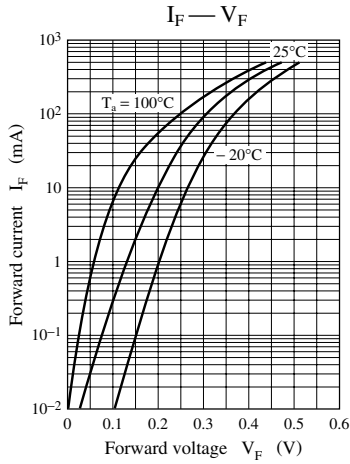
Note) 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

2. Rated input/output frequency: 400 MHz

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



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



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