

# MA3X703 (MA10703)

## Silicon epitaxial planar type

For high-frequency rectification

### ■ Features

- Mini type 3-pin package
- Allowing to rectify under ( $I_{F(AV)} = 500 \text{ mA}$ ) condition
- Low  $I_R$  (reverse current) type. (About 1/10 of  $I_R$  of the ordinary products)

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	20	V
Repetitive peak reverse voltage	$V_{RRM}$	20	V
Average forward current	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current*	$I_{FSM}$	3	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

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

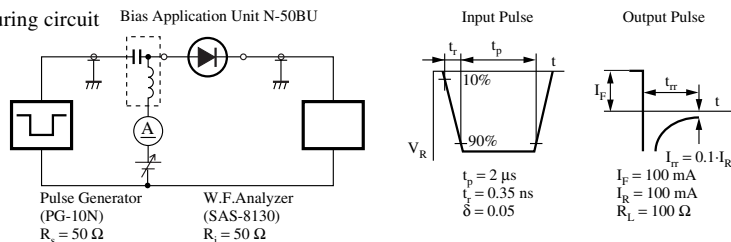
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_{R1}$	$V_R = 10 \text{ V}$			10	$\mu\text{A}$
	$I_{R2}$	$V_R = 5 \text{ V}$			1	$\mu\text{A}$
Forward voltage (DC)	$V_{F1}$	$I_F = 500 \text{ mA}$		0.5	0.55	V
	$V_{F2}$	$I_F = 10 \text{ mA}$		0.3	0.4	V
Terminal capacitance	$C_t$	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$		60		pF
Reverse recovery time*	$t_{rr}$	$I_F = I_R = 100 \text{ mA}$ $I_{rr} = 0.1 \cdot I_R, R_L = 100 \Omega$		5		ns

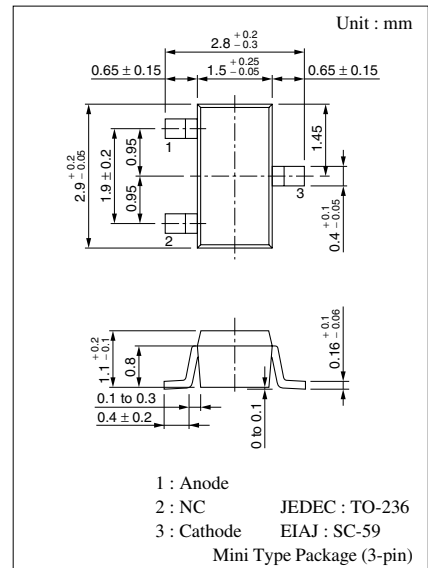
Note) 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

2. Rated input/output frequency: 400 MHz

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

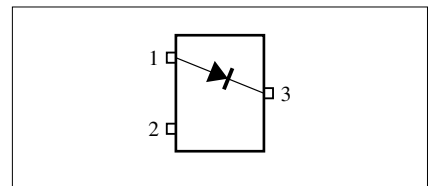


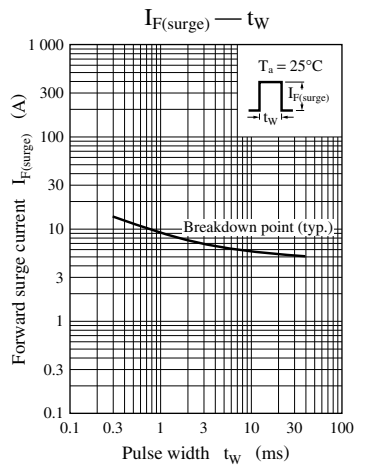
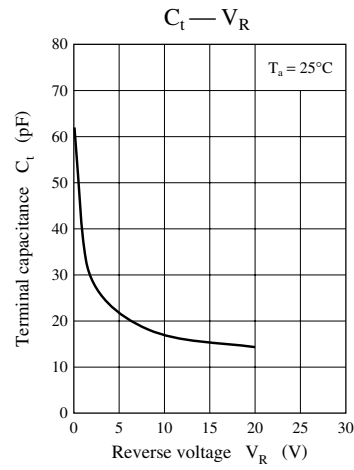
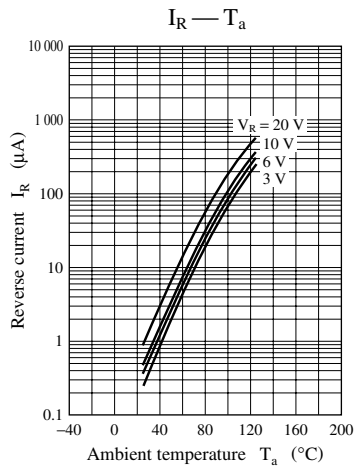
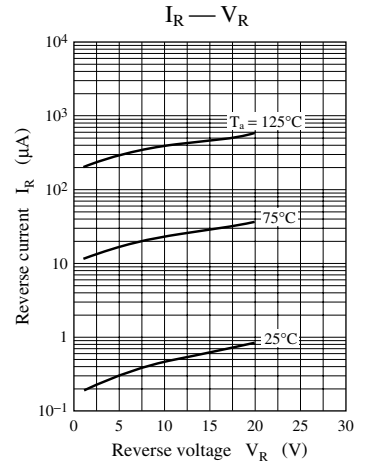
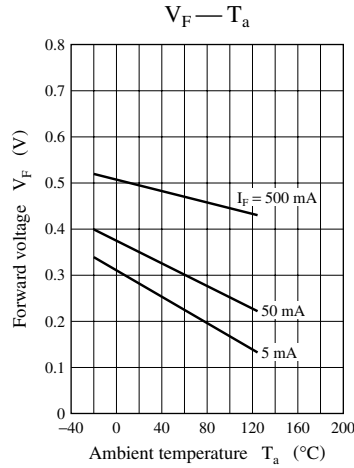
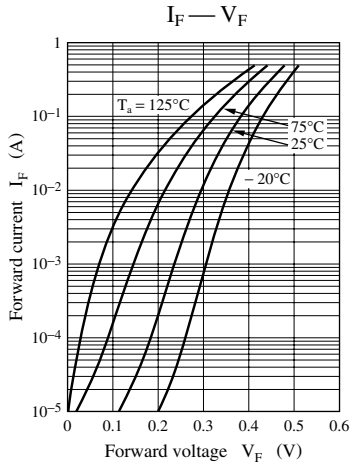
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M4R

Internal Connection





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