

# MA2Q705 (MA10705)

## Silicon epitaxial planar type

For high-frequency rectification

### ■ Features

- New Mini-power type package (2-pin)
- Allowing to rectify under ( $I_{F(AV)} = 1.5 \text{ A}$ ) condition
- Low  $V_F$  (forward voltage) type:  $V_F < 0.37 \text{ V}$  (at  $I_F = 1.0 \text{ A}$ )

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	30	V
Repetitive peak reverse voltage	$V_{RRM}$	30	V
Average forward current	$I_{F(AV)}$	1.5	A
Non-repetitive peak forward surge current*	$I_{FSM}$	30	A
Junction temperature	$T_j$	-40 to +125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +125	$^\circ\text{C}$

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

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

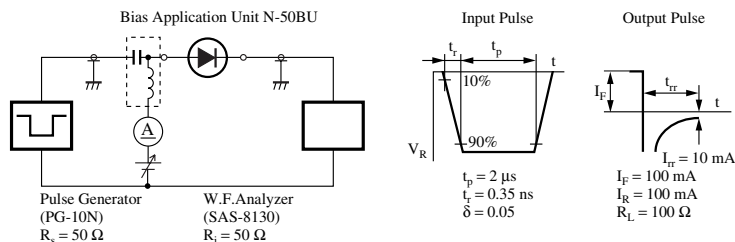
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_R$	$V_R = 30 \text{ V}$			3	mA
Forward voltage (DC)	$V_F$	$I_F = 1.0 \text{ A}$			0.37	V
Terminal capacitance	$C_t$	$V_R = 10 \text{ V}, f = 1 \text{ MHz}$		90		pF
Reverse recovery time* <sup>1,2</sup>	$t_{rr}$	$I_F = I_R = 100 \text{ mA}$ $I_{rr} = 0.1 \cdot I_R, R_L = 100 \Omega$			50	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.

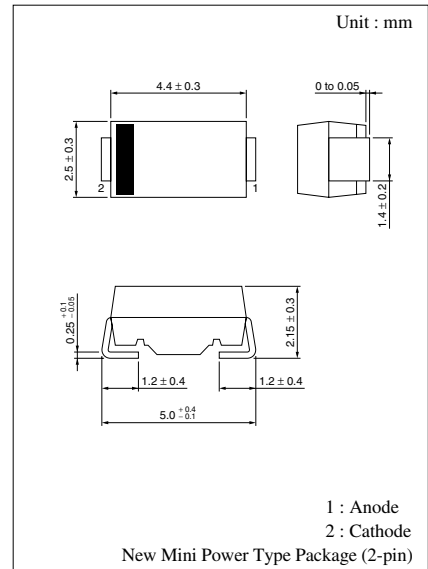
2. Rated input/output frequency: 20 MHz

3. \*1 : Obtained by fixing the element to the printed-circuit board (glass epoxy)

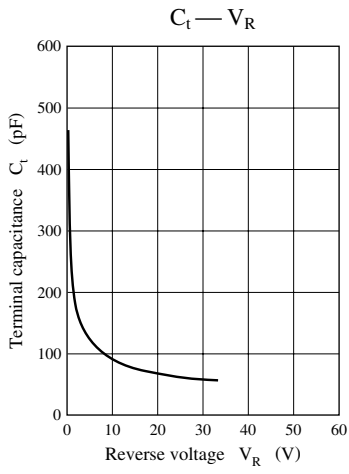
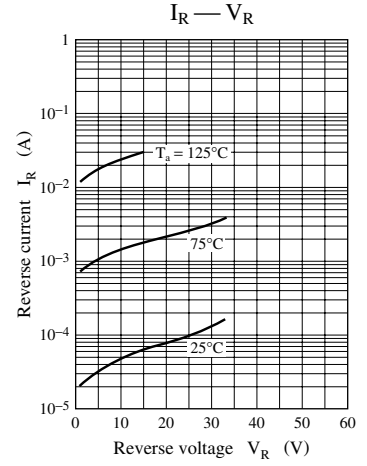
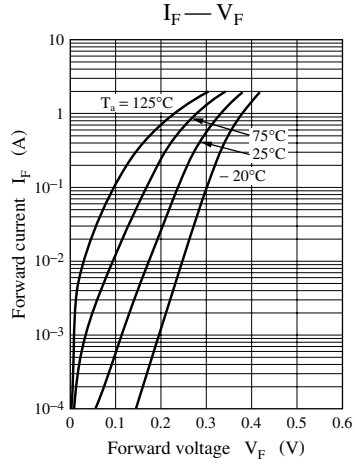
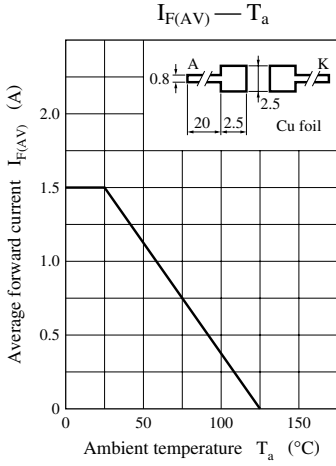
\*2 :  $t_{rr}$  measuring circuit



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



Marking Symbol: PK



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