

MA2P701, MA2P701A

Silicon epitaxial planar type

For high-frequency rectification

■ Features

- Low forward rise voltage V_F , optimum for low-voltage rectification
- Optimum for high-frequency rectification because of its short reverse recovery time (t_{rr})
- Allowing large-current rectification in spite of its small-size because of its low thermal resistance ($R_{th(j-a)}$)

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

Parameter	Symbol	Rating	Unit	
Reverse voltage (DC)	MA2P701	V_R	20	V
	MA2P701A		40	
Repetitive peak reverse voltage	MA2P701	V_{RRM}	20	V
	MA2P701A		40	
Peak forward current	I_{FM}	2	A	
Average forward current* ¹	$I_{F(AV)}$	1	A	
Non-repetitive peak forward surge current* ²	I_{FSM}	6	A	
Junction temperature	T_j	125	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$	

Note) *1 : With a printed-circuit board (copper foil area cathode side)

2 mm × 10 mm or more (copper foil area anode side)

1 mm × 10 mm or more. Board thickness $t = 1.6$ mm

*2 : 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)	MA2P701	I_R	$V_R = 20$ V		1	mA
	MA2P701A		$V_R = 40$ V		2	
Forward voltage (DC)	V_F	$I_F = 1.0$ A			0.55	V
Terminal capacitance	C_t	$V_R = 0$ V, $f = 1$ MHz		210		pF
Reverse recovery time* ²	t_{rr}	$I_F = I_R = 100$ mA $I_{rr} = 10$ mA, $R_L = 100$ Ω		14		ns
High voltage rectification* ¹	$R_{th(j-a)}$			0.15		$^\circ\text{C}/\text{mW}$

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

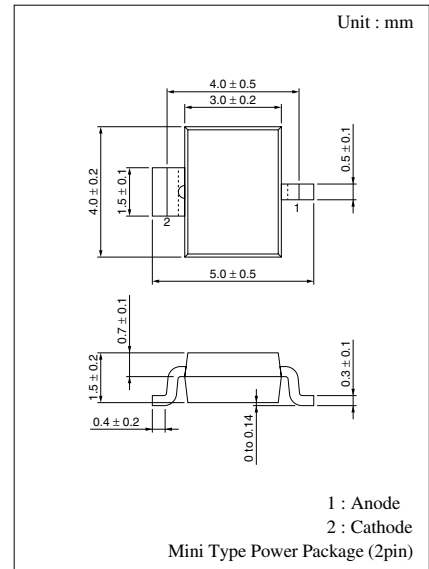
2. Rated input/output frequency: 150 MHz

3. *1 : With a printed-circuit board (copper foil area cathode side)

2 mm × 10 mm or more (copper foil area anode side)

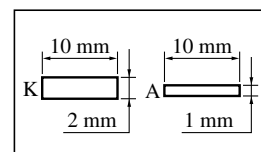
1 mm × 10 mm or more. Board thickness $t = 1.6$ mm

*2 : t_{rr} measuring instrument

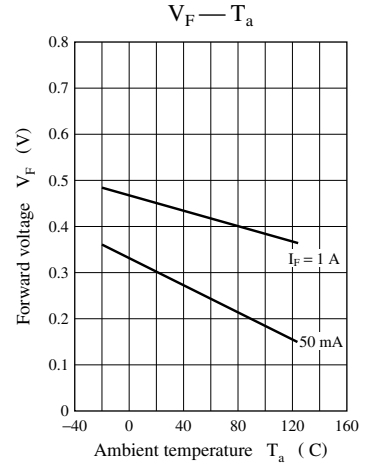
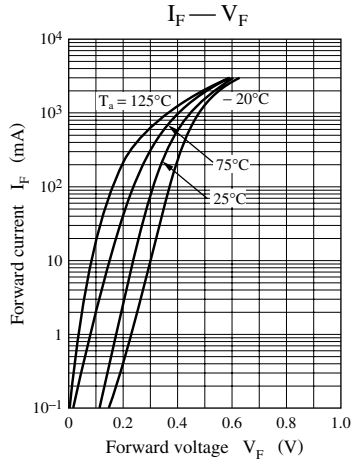
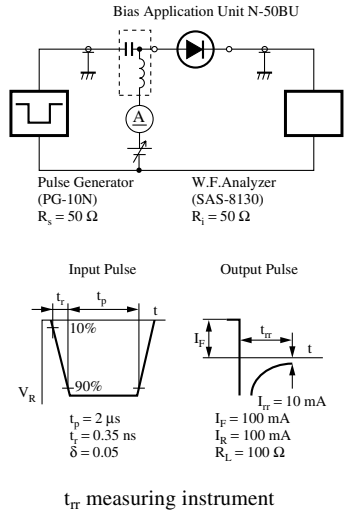


Marking Symbol

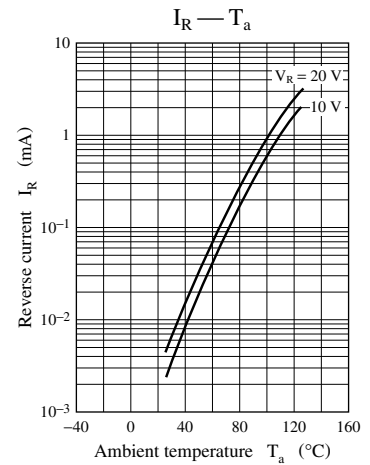
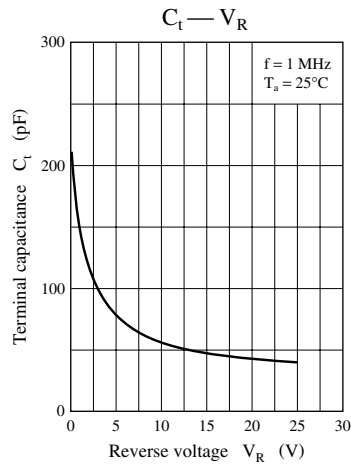
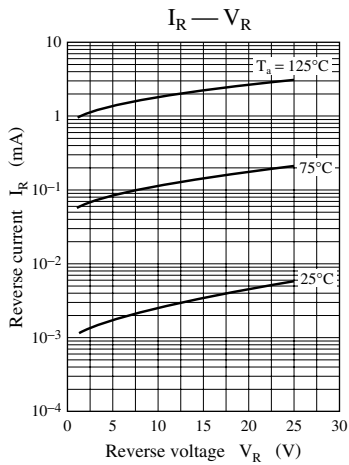
- MA2P701 : 701
- MA2P701A : 701A



Common characteristics charts



Characteristics charts of MA2P701



Characteristics charts of MA2P701A

