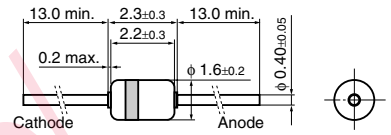
MA2C700 (MA700), MA2C700A (MA700A)

Silicon epitaxial planar type

For wave detection

For super high speed switching

Unit: mm



1 : Cathode
2 : Anode
DO-34-A1

■ Features

- Low forward voltage V_F and good wave detection efficiency η
- Small temperature coefficient of forward characteristic
- Small reverse current I_R
- High-density mounting (5 mm pitch insertion) is possible

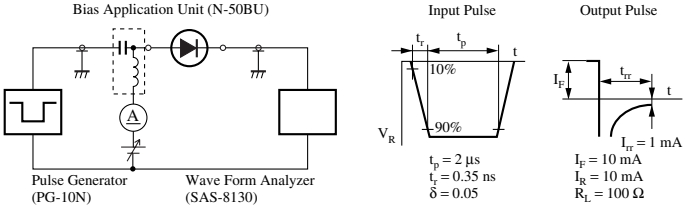
■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	Unit
Reverse voltage	MA2C700	V_R	15	V
	MA2C700A		30	
Maximum peak reverse voltage	MA2C700	V_{RM}	15	V
	MA2C700A		30	
Forward current		I_F	30	mA
Peak forward current		I_{FM}	150	mA
Junction temperature		T_j	125	°C
Storage temperature		T_{stg}	−55 to +125	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage		V_{F1}	I_F = 1 mA			0.4	V
		V_{F2}	I_F = 30 mA			1.0	
Reverse current	MA2C700	I_R	V_R = 15 V			100	nA
	MA2C700A		V_R = 30 V			150	
Terminal capacitance		C_t	V_R = 1 V, f = 1 MHz		1.3		pF
Reverse recovery time *		t_{rr}	$I_F = I_R$ = 10 mA, I_{rr} = 1 mA, R_L = 100 Ω		1.0		ns
Detection efficiency	MA2C700	η	$V_{IN} = 3\ V_{(peak)}$, f = 30 MHz, R_L = 3.9 kΩ, C_L = 10 pF		65		%
	MA2C700A				60		

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 2 GHz. 4.*: t_{rr} measurement circuit



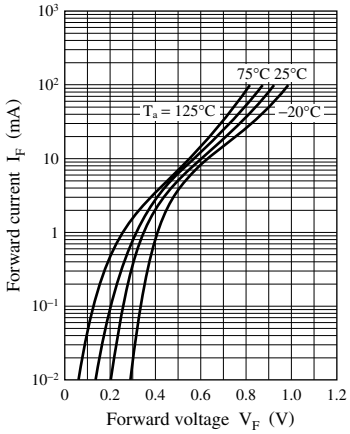
■ Cathode Mark

Type No.		MA2C700	MA2C700A
Color	1st Band	Silver	Silver
	2nd Band	—	Green

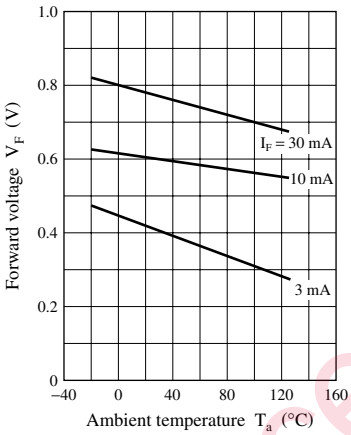
Note) The part number in the parenthesis shows conventional part number.

Common characteristics charts

I_F — V_F

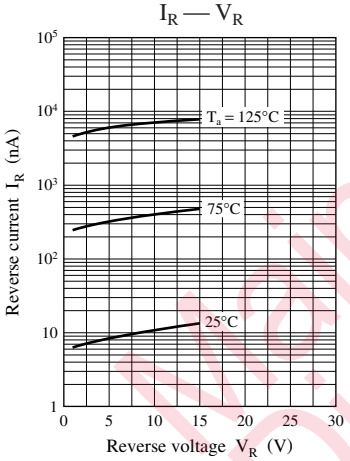


V_F — T_a

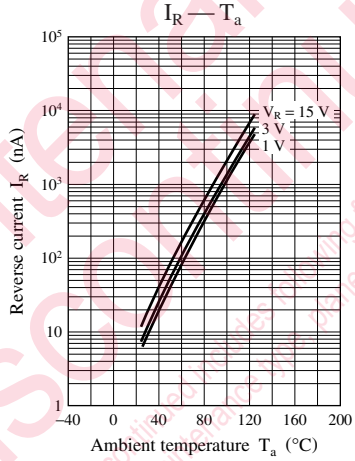


Characteristics charts of MA2C700

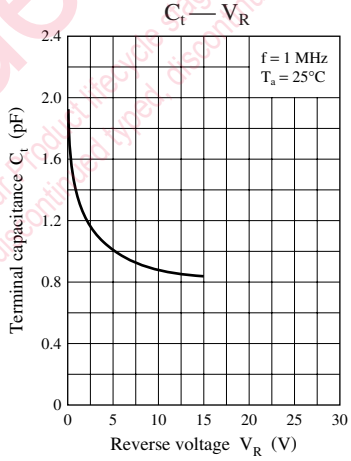
I_R — V_R



I_R — T_a

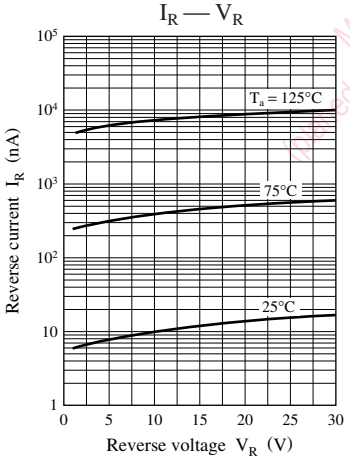


C_t — V_R

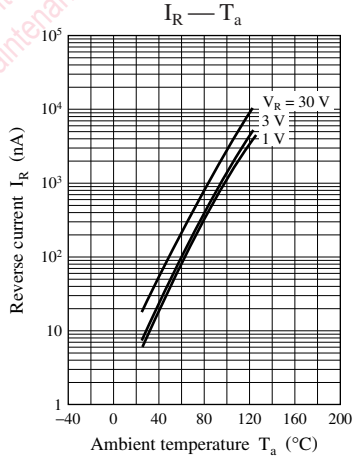


Characteristics charts of MA2C700A

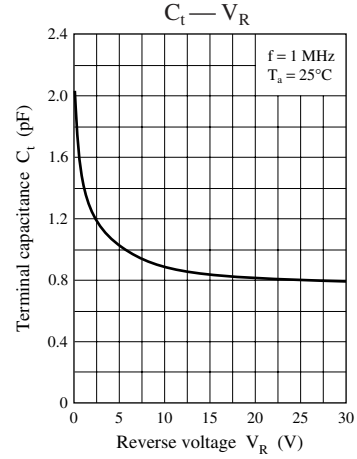
I_R — V_R



I_R — T_a



C_t — V_R



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