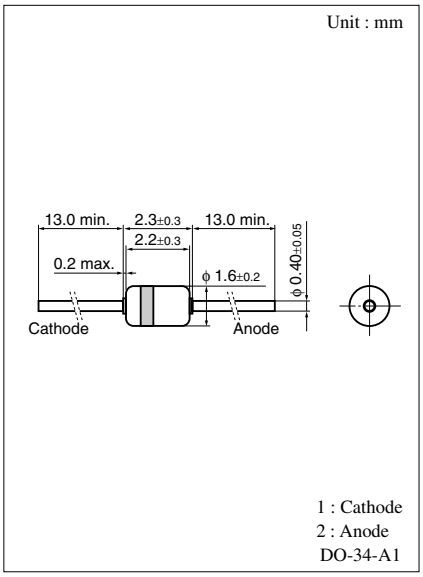
MA2C178, MA2C179 (MA178, MA179)

Silicon epitaxial planar type

For high-speed switching circuits



■ Features

- Large forward current I_{FRM}
- High switching speed
- Small terminal capacitance, C_t

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	Unit
Reverse voltage (DC)	MA2C178	V_R	40	V
	MA2C179		80	
Repetitive peak reverse voltage	MA2C178	V_{RRM}	40	V
	MA2C179		80	
Average forward current		$I_{F(AV)}$	200	mA
Repetitive peak forward current		I_{FRM}	600	mA
Non-repetitive peak forward surge current*		I_{FSM}	1	A
Junction temperature		T_j	200	°C
Storage temperature		T_{stg}	−55 to +200	°C

Note) * : t = 1 s

■ Electrical Characteristics T_a = 25°C

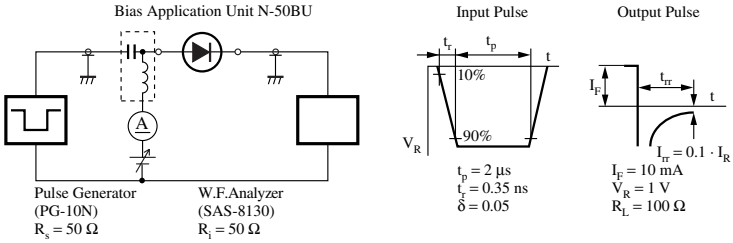
Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	MA2C178	I_{R1}	V_R = 15 V			50	nA
	MA2C179						
	MA2C178	I_{R2}	V_R = 35 V			500	nA
	MA2C179		V_R = 75 V			500	
	MA2C178	I_R	V_R = 35 V, T_a = 150°C			100	µA
	MA2C179		V_R = 75 V, T_a = 150°C			100	
Forward voltage (DC)		V_F	I_F = 200 mA			1.1	V
Terminal capacitance		C_t	V_R = 0 V, f = 1 MHz			4	pF
Reverse recovery time*		t_{rr}	I_F = 10 mA, V_R = 1 V I_{rr} = 0.1 · I_R, R_L = 100 Ω			20	ns

Note) 1. Rated input/output frequency: 50 MHz
2. * : t_{rr} measuring circuit

■ Cathode Indication

Type No.		MA2C178	MA2C179
Color	1st Band	Violet	Violet
	2nd Band	White	Green

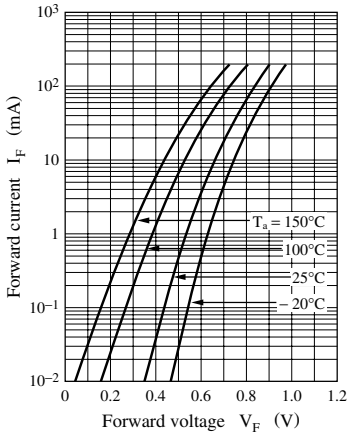
Note) The part numbers in the parenthesis show conventional part number.



t_{rr}measuring circuit

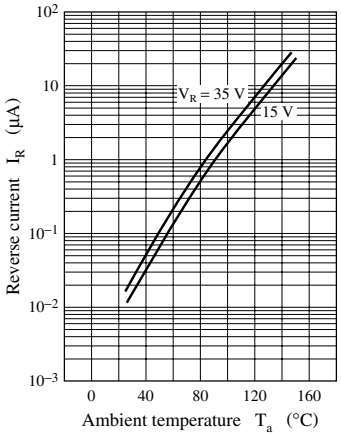
Common characteristics charts

I_F — V_F

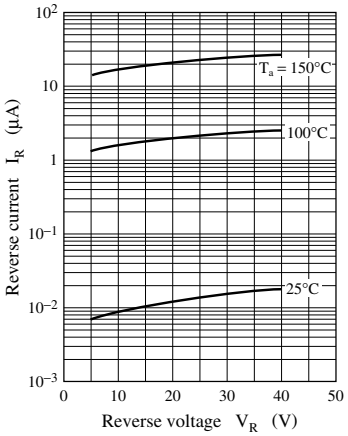


Characteristics charts of MA2C178

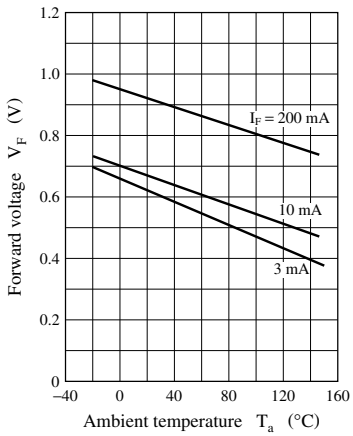
I_R — T_a



I_R — V_R

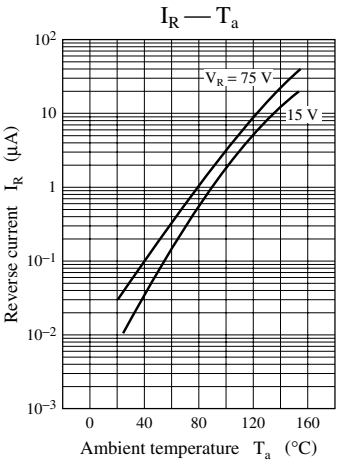


V_F — T_a

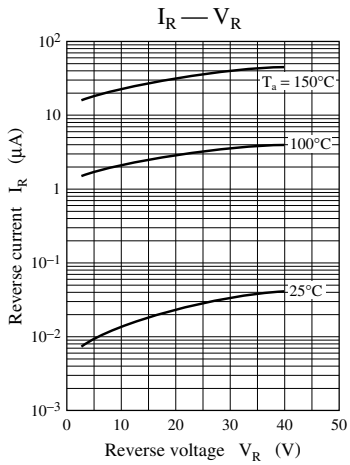


Characteristics charts of MA2C179

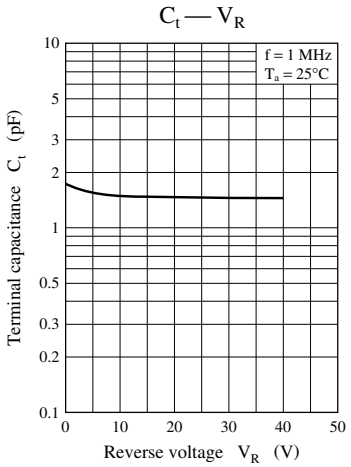
I_R — T_a



I_R — V_R



C_t — V_R



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