

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

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	$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-55 to +200	$^\circ\text{C}$	

Note) \* :  $t = 1 \text{ s}$

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

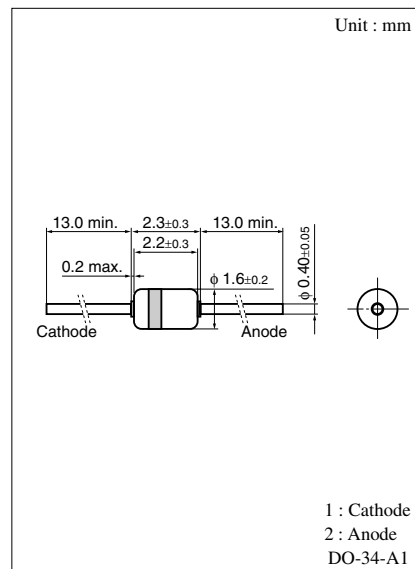
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	MA2C178	$V_R = 15 \text{ V}$			50	nA
	MA2C179					
	MA2C178	$V_R = 35 \text{ V}$			500	nA
	MA2C179					
	MA2C178	$V_R = 35 \text{ V}, T_a = 150^\circ\text{C}$			100	$\mu\text{A}$
MA2C179	$V_R = 75 \text{ V}, T_a = 150^\circ\text{C}$					
Forward voltage (DC)	$V_F$	$I_F = 200 \text{ mA}$			1.1	V
Terminal capacitance	$C_t$	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			4	pF
Reverse recovery time*	$t_{rr}$	$I_F = 10 \text{ mA}, V_R = 1 \text{ V}$ $I_{rr} = 0.1 \cdot I_R, R_L = 100 \ \Omega$			20	ns

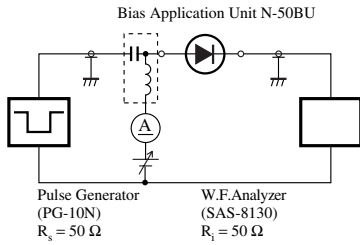
Note) 1. Rated input/output frequency: 50 MHz  
2. \* :  $t_{rr}$  measuring circuit

## ■ Cathode Indication

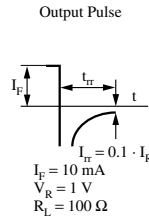
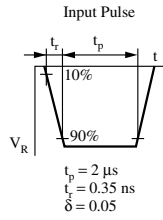
Type No.	MA2C178	MA2C179	
Color	1st Band	Violet	Violet
	2nd Band	White	Green

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

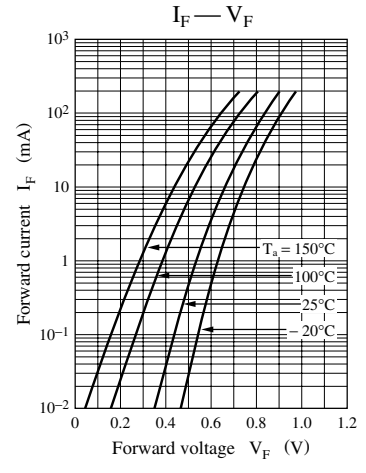




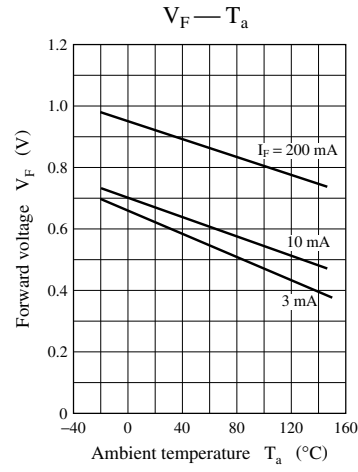
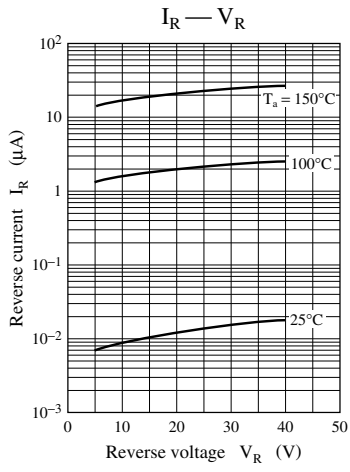
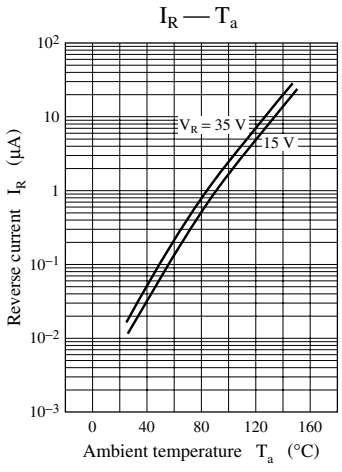
$t_{rr}$  measuring circuit



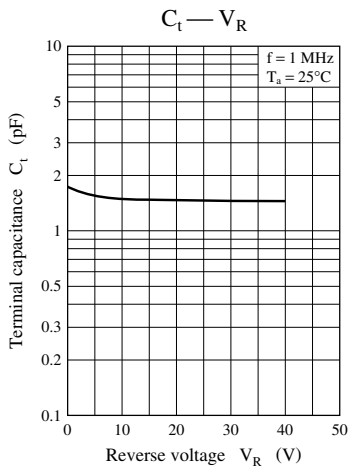
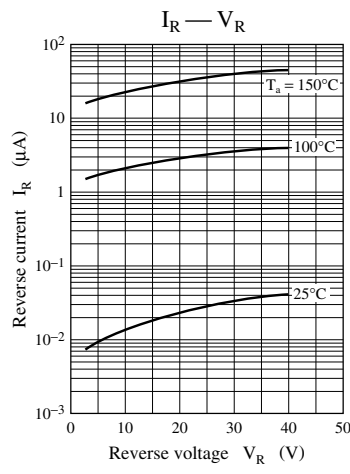
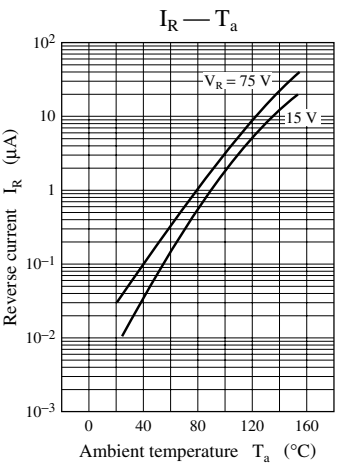
Common characteristics charts



Characteristics charts of MA2C178



Characteristics charts of MA2C179



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