

# MA2B170, MA2B171 (MA170, MA171)

Silicon epitaxial planar type

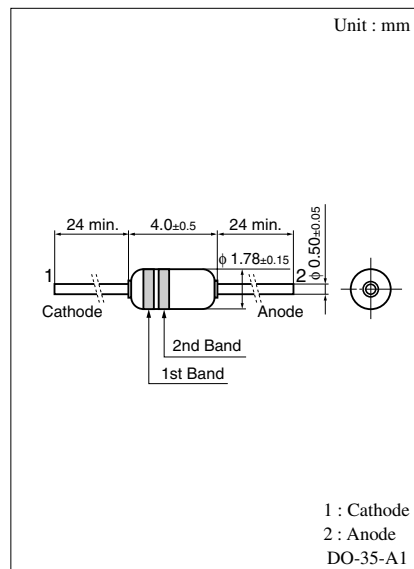
For high-speed switching circuits

■ Features

- Large forward current  $I_{F(AV)}$
- High switching speed
- Small terminal capacitance,  $C_t$

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

Parameter	Symbol	Rating	Unit	
Reverse voltage (DC)	MA2B170	$V_R$	40	V
	MA2B171		80	
Repetitive peak reverse voltage	MA2B170	$V_{RRM}$	40	V
	MA2B171		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  $T_a = 25^\circ\text{C}$

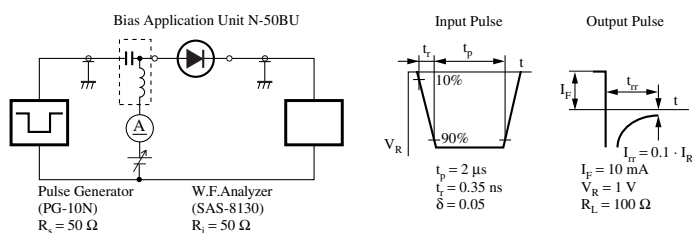
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	MA2B170	$V_R = 15 \text{ V}$			50	nA
	MA2B171					
	MA2B170	$V_R = 35 \text{ V}$			500	nA
	MA2B171					
		MA2B170	$V_R = 35 \text{ V}, T_a = 150^\circ\text{C}$			100
MA2B171		$V_R = 75 \text{ V}, T_a = 150^\circ\text{C}$				
Forward voltage (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: 100 MHz

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

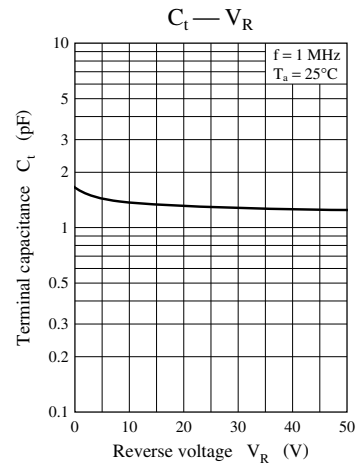
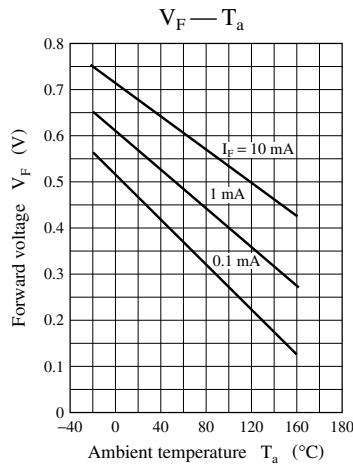
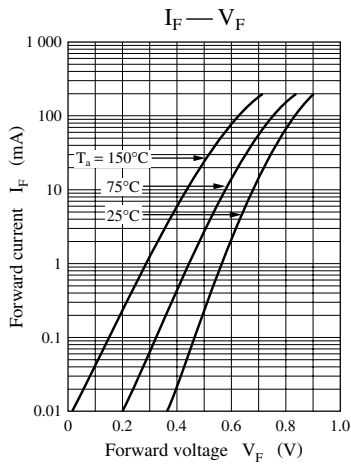
■ Cathode Indication

Type No.	MA2B170	MA2B171
Color		
1st Band	Violet	Violet
2nd Band	White	Green

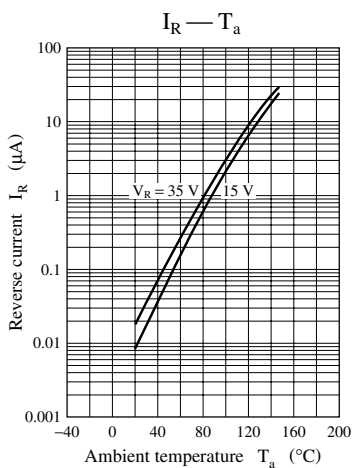
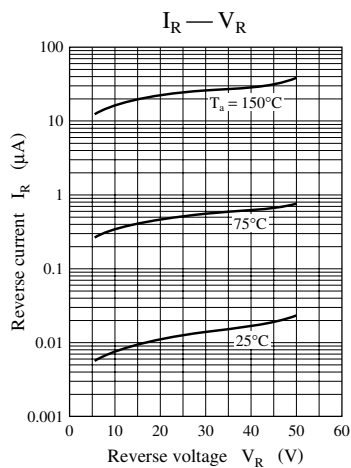


Note) The part numbers in the parenthesis show conventional part number.

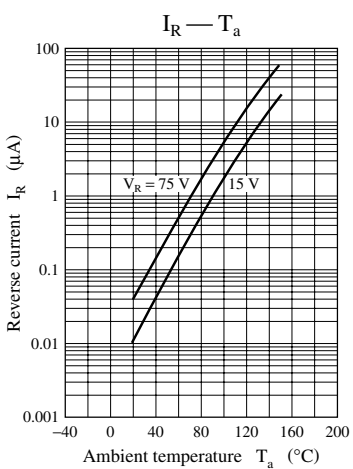
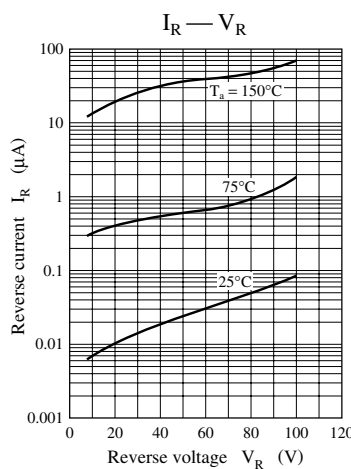
Common characteristics charts



Characteristics charts of MA2B170



Characteristics charts of MA2B171



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