

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	°C
Storage temperature		T_{stg}	−55 to +200	°C

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

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

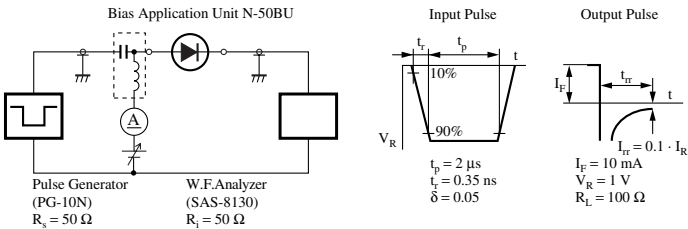
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	MA2B170	I_{R1}	$V_R = 15 \text{ V}$		50	nA
	MA2B171					
	MA2B170	I_{R2}	$V_R = 35 \text{ V}$		500	nA
	MA2B171					
	MA2B170	I_R	$V_R = 35 \text{ V}, T_a = 150^\circ\text{C}$		100	μA
	MA2B171		$V_R = 75 \text{ V}, T_a = 150^\circ\text{C}$			
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

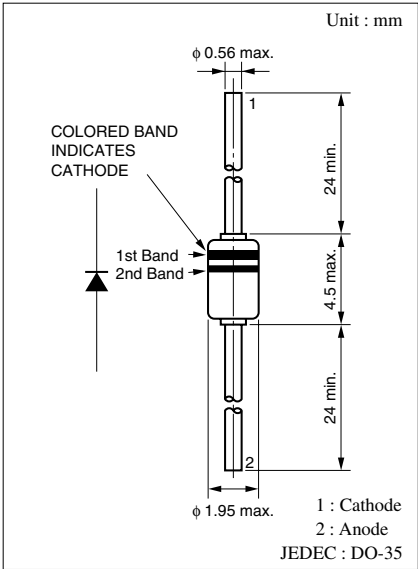
2. * : t_{rr} measuring circuit

■ Cathode Indication

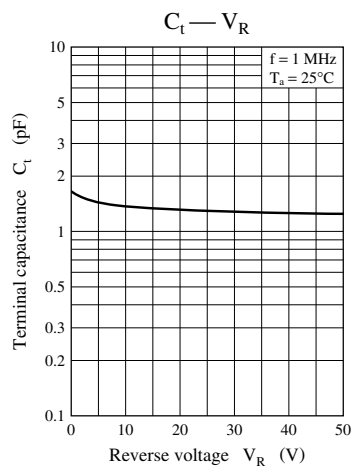
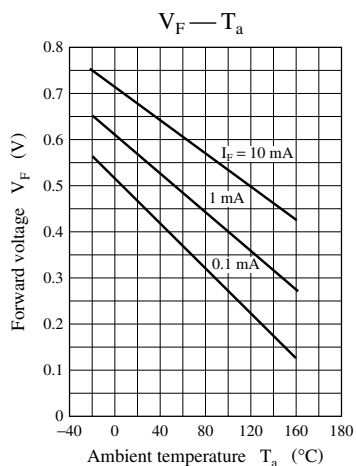
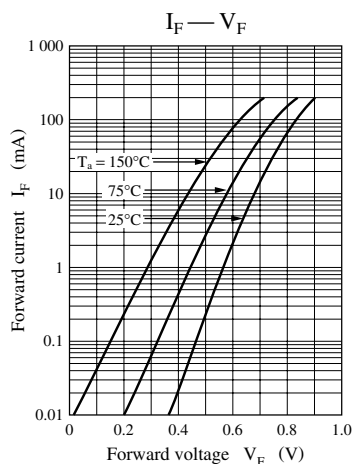
Type No.	MA2B170	MA2B171
Color		
1st Band	Violet	Violet
2nd Band	White	Green



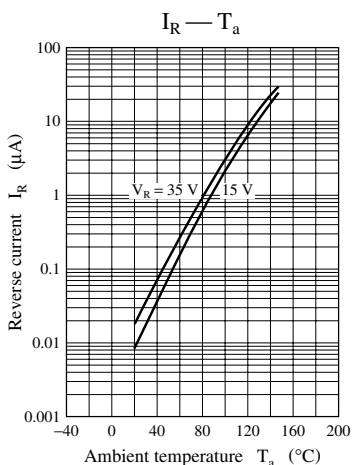
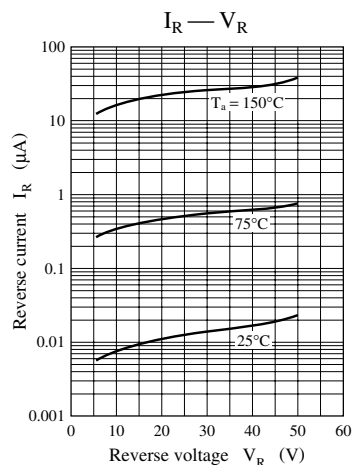
Note) The part numbers in the parenthesis show conventional part number.



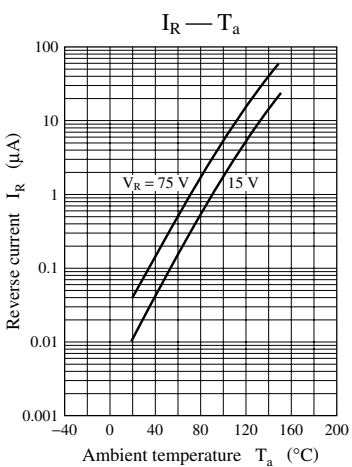
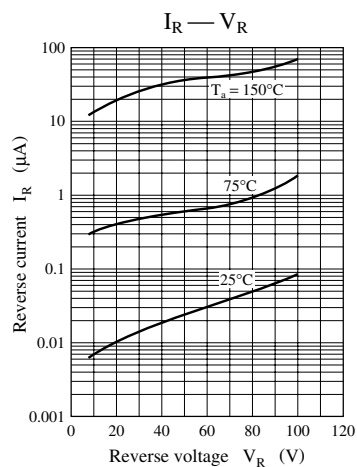
Common characteristics charts



Characteristics charts of MA2B170



Characteristics charts of MA2B171



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