

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)	V_R	40	V
		80	
Repetitive peak reverse voltage	V_{RRM}	40	V
		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	$^\circ\text{C}$

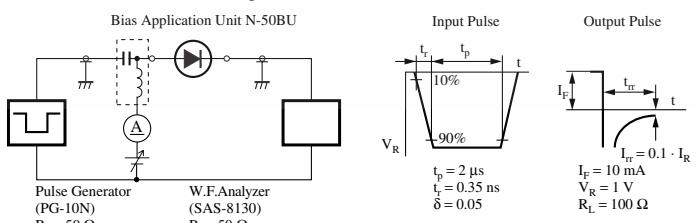
Note) * : $t = 1\text{ s}$

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

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

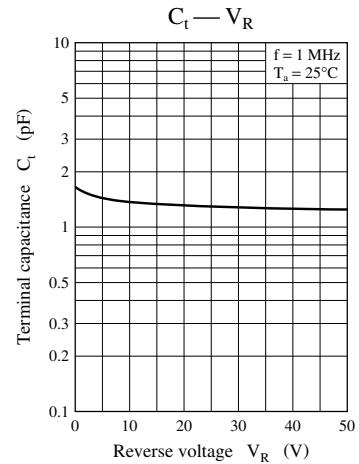
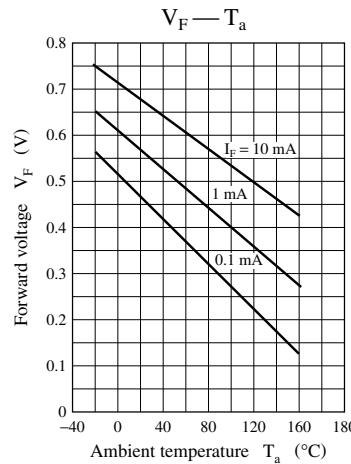
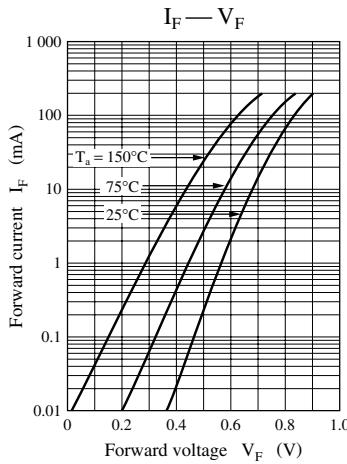
2. * : t_{rr} measuring circuit



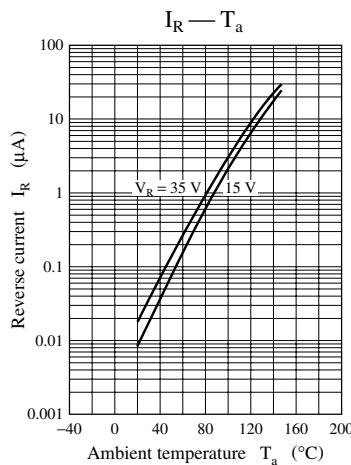
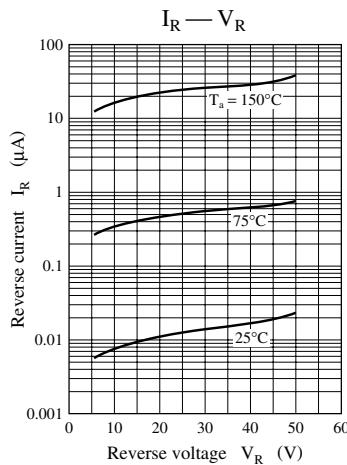
■ Cathode Indication

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

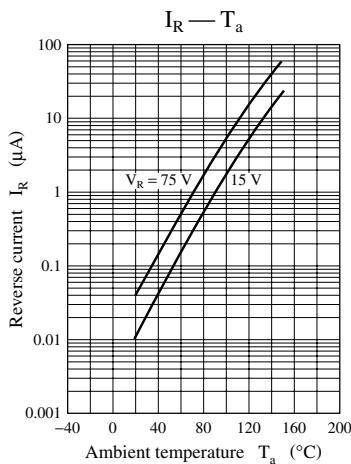
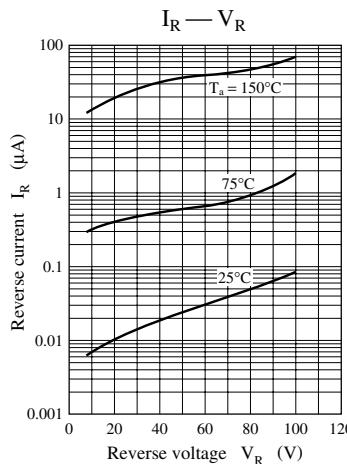
Common characteristics charts



Characteristics charts of MA2B170



Characteristics charts of MA2B171



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