

MA2B190 (MA190)

Silicon epitaxial planar type

For switching circuits

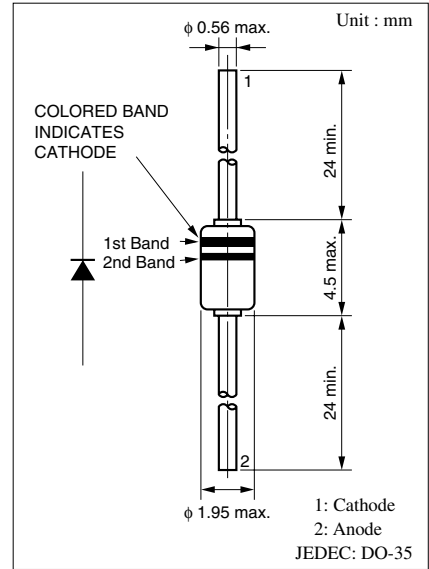
■ Features

- Low forward dynamic resistance r_f
- Small terminal capacitance, C_t

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	35	V
Repetitive peak reverse voltage	V_{RRM}	35	V
Average forward current	$I_{F(AV)}$	100	mA
Repetitive peak forward current	I_{FRM}	225	mA
Non-repetitive peak forward surge current*	I_{FSM}	500	mA
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}	$V_R = 15 \text{ V}$			0.005	μA
	I_{R2}	$V_R = 30 \text{ V}$			0.01	μA
	I_{R3}	$V_R = 35 \text{ V}, T_a = 150^\circ\text{C}$			100	μA
Forward voltage (DC)	V_F	$I_F = 100 \text{ mA}$			1.2	V
Reverse voltage (DC)	V_R	$I_R = 100 \mu\text{A}$	35			V
Terminal capacitance	C_t	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			4	pF
Forward dynamic resistance	r_f^{*1}	$I_F = 3 \text{ mA}, f = 30 \text{ MHz}$			2.5	Ω
	r_f^{*2}	$I_F = 3 \text{ mA}, f = 30 \text{ MHz}$			3.6	Ω
Reverse recovery time*3	t_{rr}	$I_F = 10 \text{ mA}, V_R = 1 \text{ V}$ $I_{tr} = 0.1 \cdot I_R, R_L = 100 \Omega$			0.2	ms

Note) 1. Rated input/output frequency: 2.5 MHz

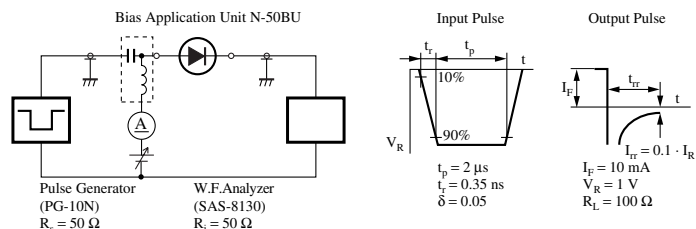
2. *1 : r_f measuring instrument: Nihon Koshuha Model TDC-121A

*2 : r_f measuring instrument: YHP 4191A RF IMPEDANCE ANALYZER

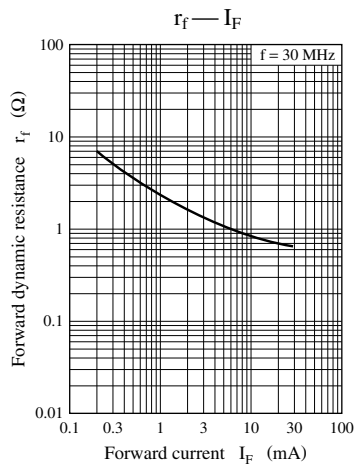
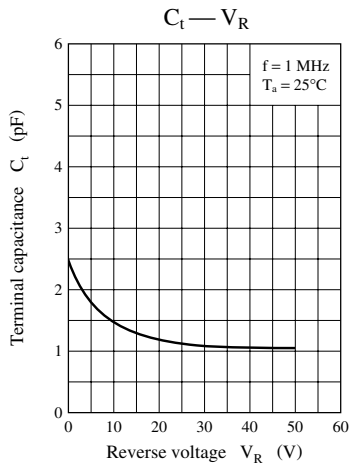
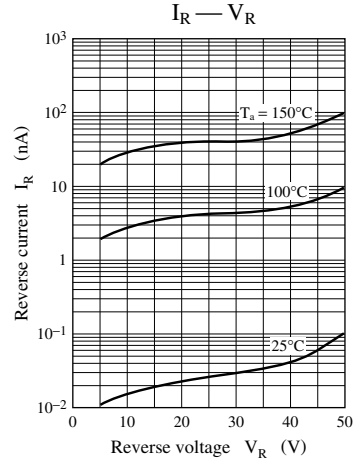
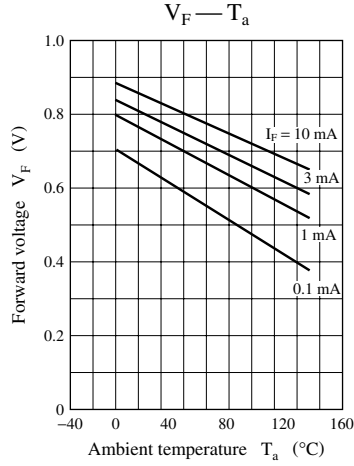
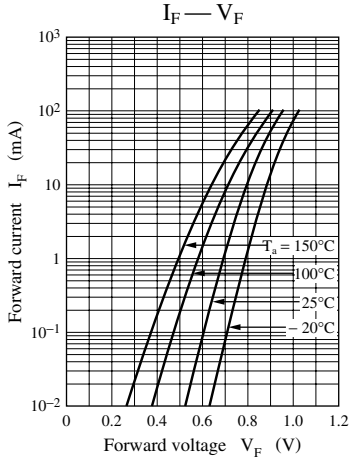
*3 : t_{rr} measuring circuit

■ Cathode Indication

Type No.	MA2B190	
Color	1st Band	White
	2nd Band	White



Note) The part number in the parenthesis shows conventional part number.



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