

MA2C196 (MA196)

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	V_R	50	V
Repetitive peak reverse voltage	V_{RRM}	50	V
Forward current (Average)	$I_{F(AV)}$	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 $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 100\text{ mA}$			1.2	V
Reverse voltage	V_R	$I_R = 100\ \mu\text{A}$	50			V
Reverse current	I_{R1}	$V_R = 15\text{ V}$			5	nA
	I_{R2}	$V_R = 50\text{ V}$			10	nA
	I_{R3}	$V_R = 50\text{ V}, T_a = 150^\circ\text{C}$			100	μA
Terminal capacitance	C_t	$V_R = 0\text{ V}, f = 1\text{ MHz}$			4	pF
Forward dynamic resistance	r_{f1}^{*1}	$I_F = 3\text{ mA}, f = 30\text{ MHz}$			2.5	Ω
	r_{f2}^{*2}	$I_F = 3\text{ mA}, f = 30\text{ MHz}$			3.6	Ω
Reverse recovery time ^{*3}	t_{rr}	$I_F = 10\text{ mA}, V_R = 1\text{ V}$ $I_{rr} = 0.1 I_R, R_L = 100\ \Omega$			0.20	ms

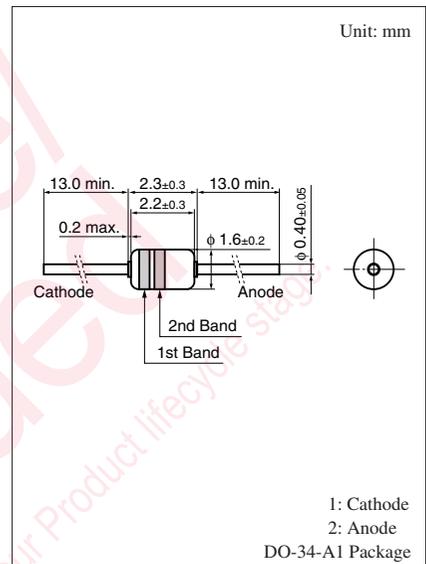
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Absolute frequency of input and output is 2.5 kHz.

3. *1: r_f measuring instrument: Nihon Koshuha Model TDC-121A

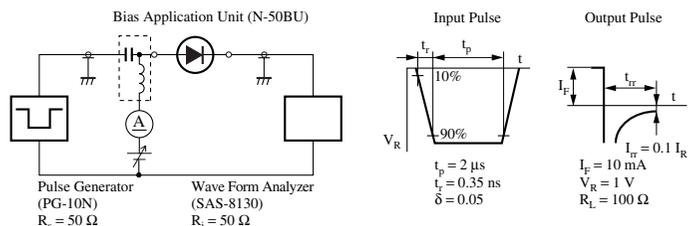
*2: r_f measuring instrument: YHP 4191A RF IMPEDANCE ANALYZER

*3: t_{rr} measurement circuit

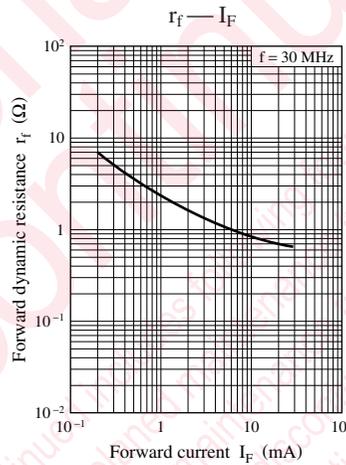
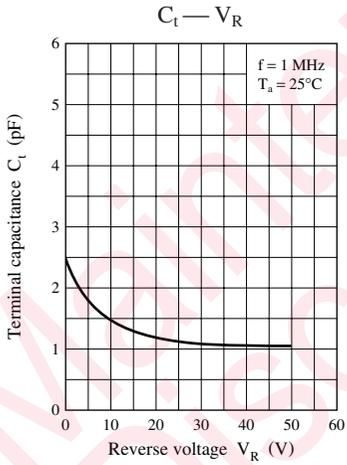
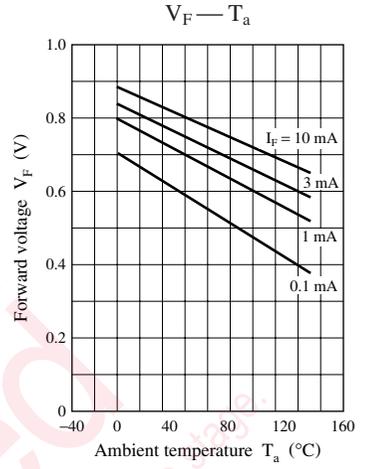
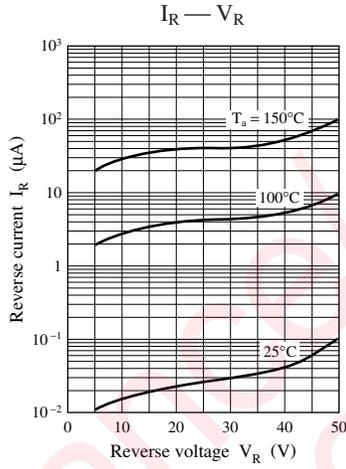
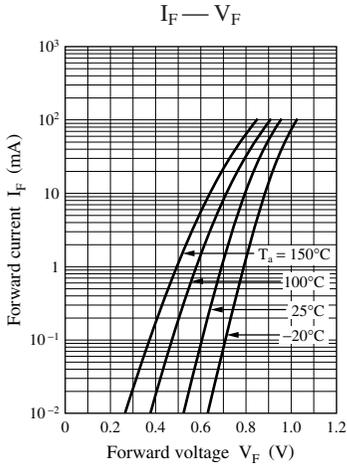


■ Cathode Indication

Type No.		
Color	1st Band	Green
	2nd Band	Green



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



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