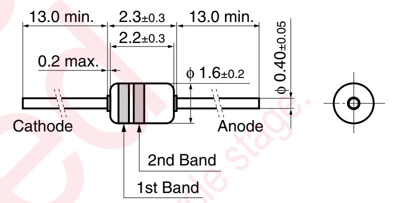
MA2C196 (MA196)

Silicon epitaxial planar type

For switching circuits



■ Features

- Low forward dynamic resistance r_f
- Small terminal capacitance C_t

■ Absolute Maximum Ratings $T_a = 25°C$

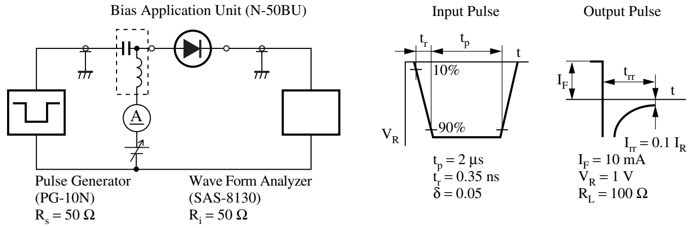
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	50	V
Repetitive peak reverse voltage	V_{RRM}	50	V
Forward current (Average)	$I_{F(AV)}$	100	mA
Repetitive peak forward current	I_{FRM}	225	mA
Non-repetitive peak forward surge current *	I_{FSM}	500	mA
Junction temperature	T_j	200	°C
Storage temperature	T_{stg}	−55 to +200	°C

Note) *: t = 1 s

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

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

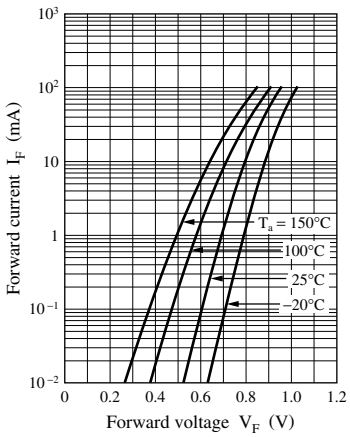


■ Cathode Indication

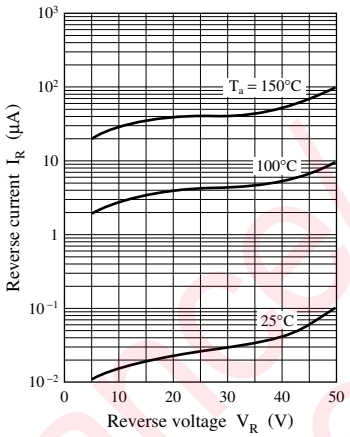
Type No.		
Color	1st Band	Green
	2nd Band	Green

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

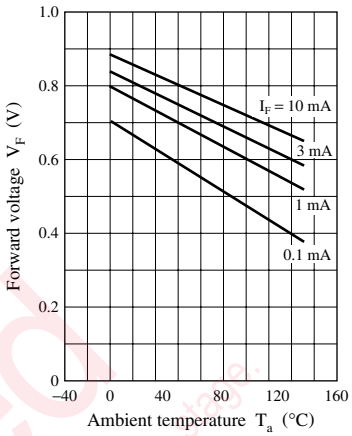
I_F — V_F



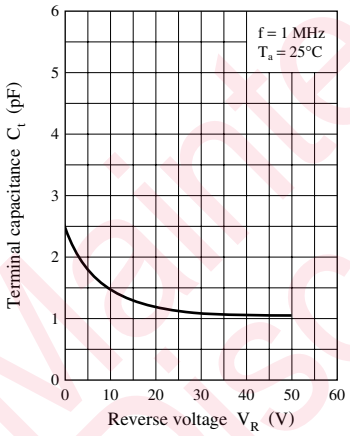
I_R — V_R



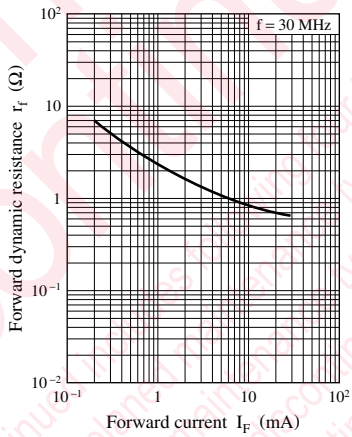
V_F — T_a



C_t — V_R



r_f — I_F



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