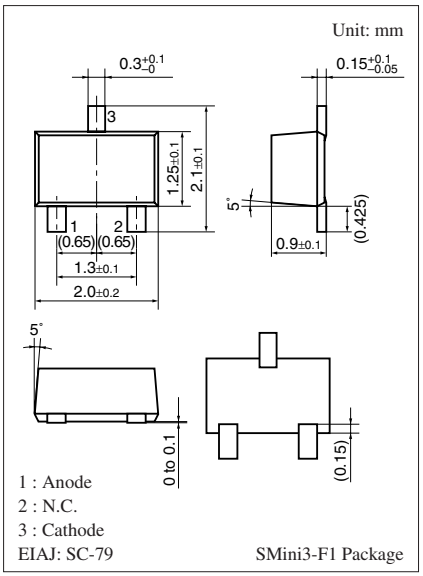
MA3J700 (MA10700)

Silicon epitaxial planar type

For high frequency rectification

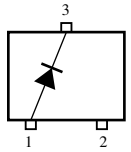
■ Features

- Forward current (Average) $I_{F(AV)}$ = 500 mA rectification is possible
- Optimum for high frequency rectification because of its short reverse recovery time t_{rr}



Marking Symbol: M2W

Internal Connection



■ Absolute Maximum Ratings T_a = 25°C

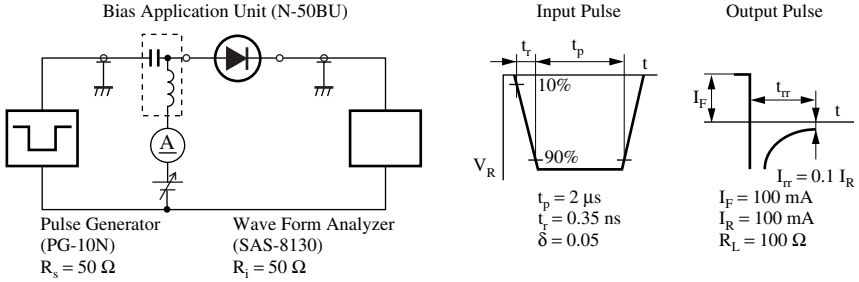
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	40	V
Repetitive peak reverse voltage	V_{RRM}	40	V
Forward current (Average)	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current *	I_{FSM}	2	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

■ Electrical Characteristics T_a = 25°C ± 3°C

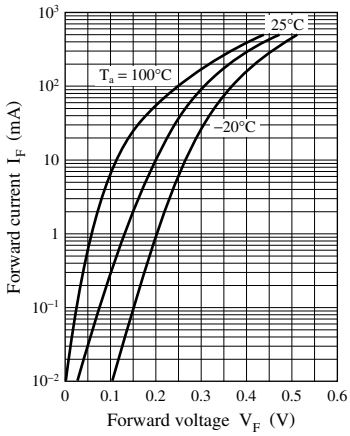
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 500 mA			0.55	V
Reverse current	I_R	V_R = 35 V			100	μA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		60		pF
Reverse recovery time *	t_{rr}	I_F = I_R = 100 mA I_{rr} = 0.1 I_R , R_L = 100 Ω		5		ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 400 MHz. 4.∗: t_{rr} measurement circuit

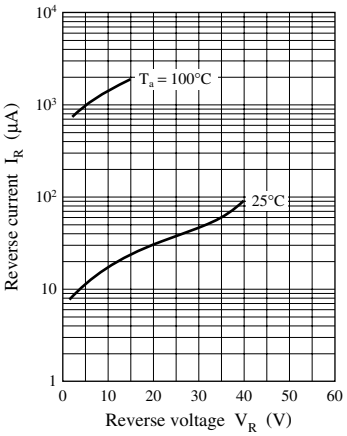


Note) The part number in the parenthesis shows conventional part number.

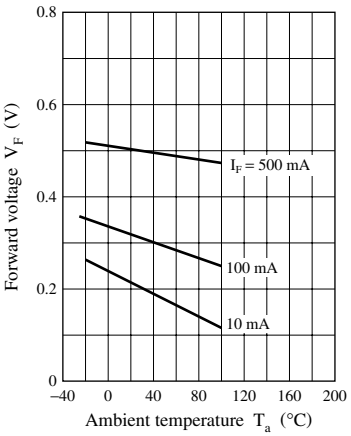
I_F — V_F



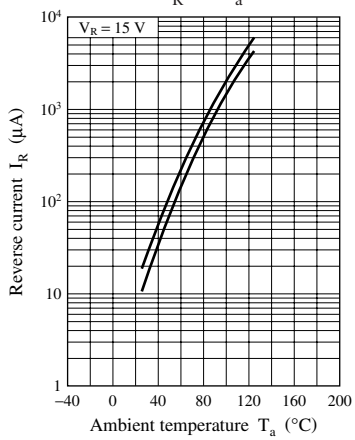
I_R — V_R



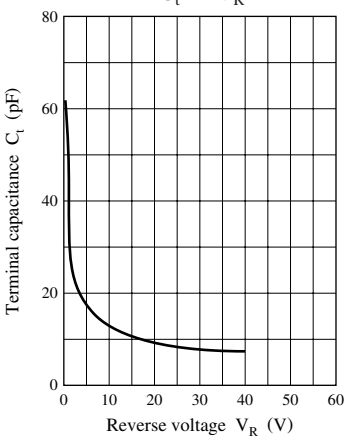
V_F — T_a



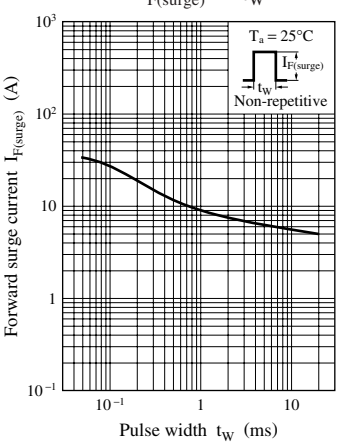
I_R — T_a



C_t — V_R



$I_{F(surge)}$ — t_W



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