

MA3J702 (MA10702)

Silicon epitaxial planar type

For high frequency rectification

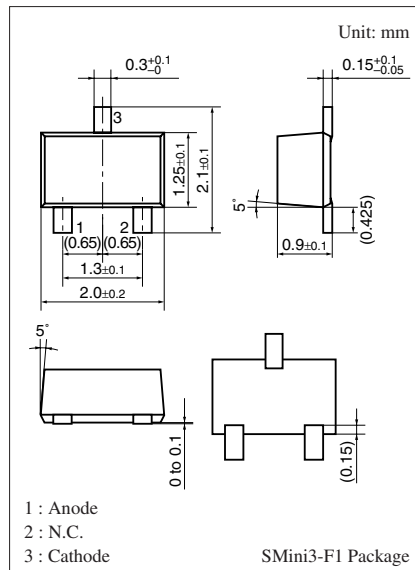
■ Features

- Forward current (Average) $I_{F(AV)} = 500$ mA rectification is possible
- Small reverse current I_R (About 1/10 of I_R of the ordinary products)

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

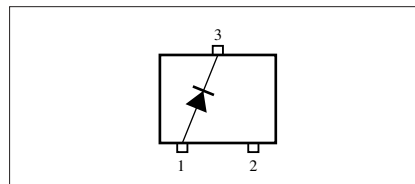
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	20	V
Repetitive peak reverse voltage	V_{RRM}	20	V
Forward current (Average)	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current *	I_{FSM}	3	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

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



Marking Symbol: M4R

Internal Connection

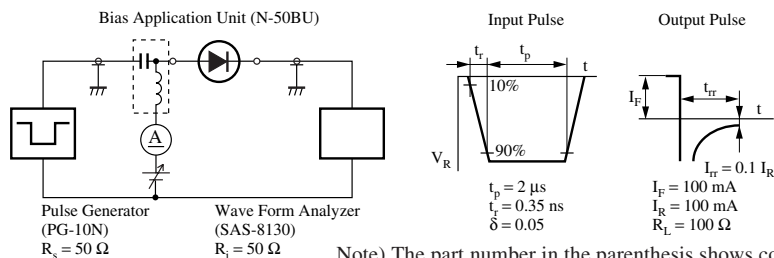


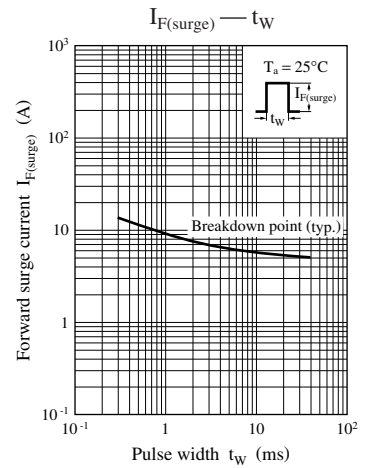
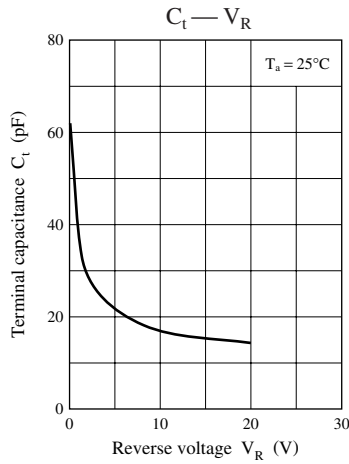
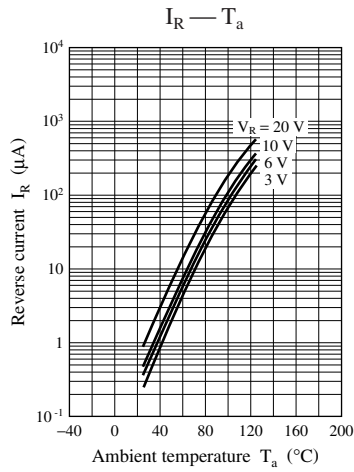
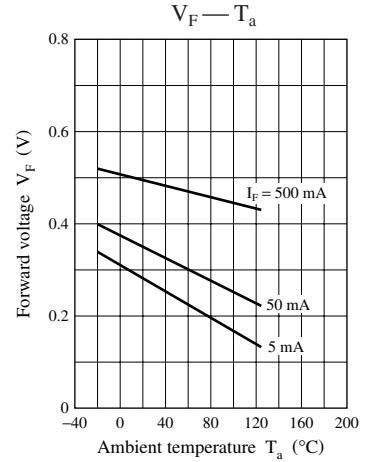
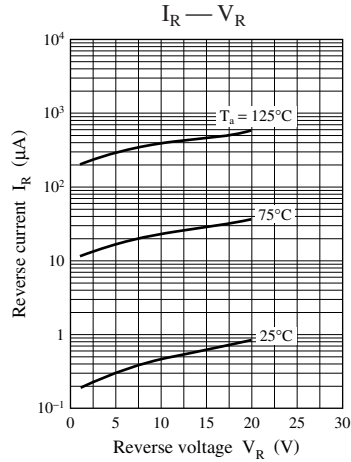
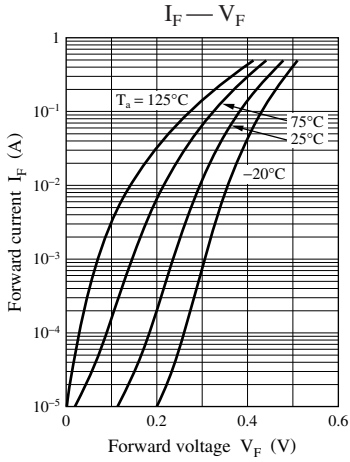
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F = 10$ mA		0.30	0.40	V
	V_{F2}	$I_F = 500$ mA		0.50	0.55	
Reverse current	I_{R1}	$V_R = 5$ V			1	μA
	I_{R2}	$V_R = 10$ V			10	
Terminal capacitance	C_t	$V_R = 0$ V, $f = 1$ MHz		60		pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 100$ mA $I_{tr} = 0.1 I_R$, $R_L = 100 \Omega$		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





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