

MA3X748 (MA748)

Silicon epitaxial planar type

For high frequency rectification

■ Features

- Low V_F type of MA3X720 (MA720)
- Low forward voltage V_F and good rectification efficiency
- Optimum for high frequency rectification because of its short reverse recovery time t_{rr}

■ 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	$^\circ\text{C}$

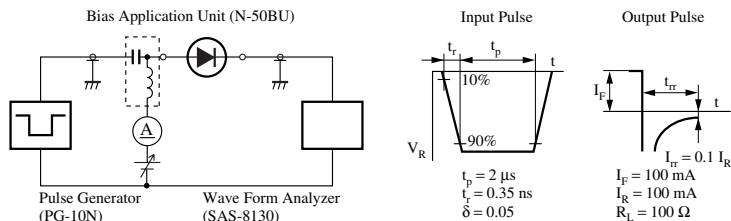
Note) *: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

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

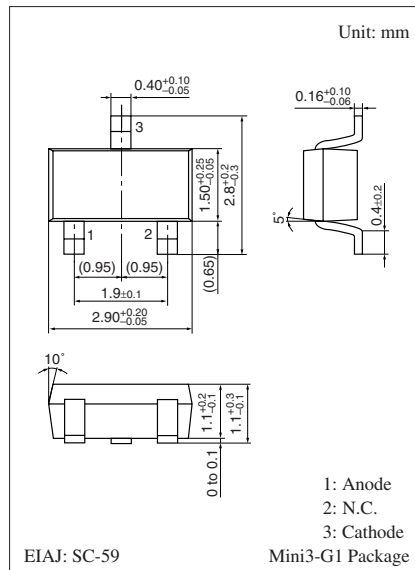
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F = 10 \text{ mA}$			0.3	V
	V_{F2}	$I_F = 500 \text{ mA}$			0.5	V
Reverse current	I_R	$V_R = 10 \text{ V}$			30	μA
Terminal capacitance	C_t	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$		60		pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 100 \text{ mA}$ $I_{rr} = 0.1 I_R, R_L = 100 \Omega$		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

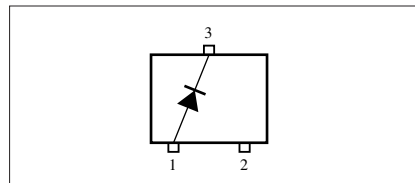


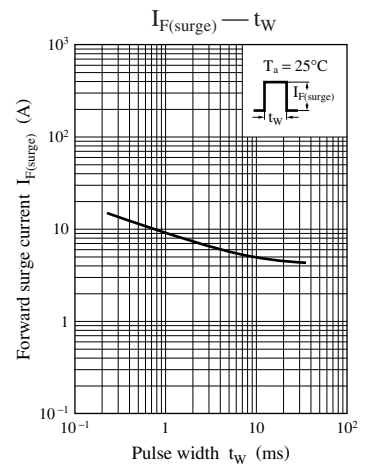
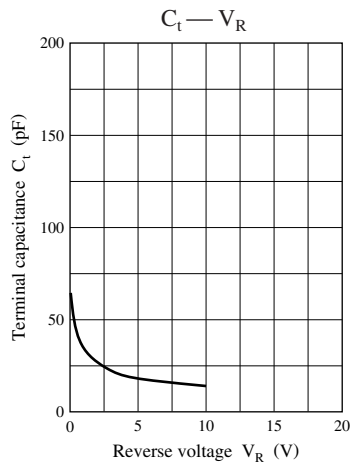
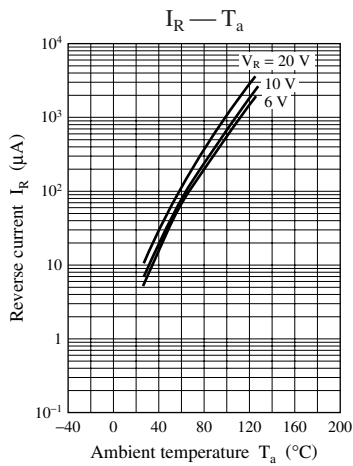
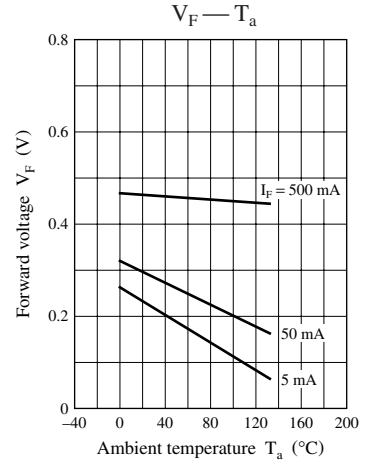
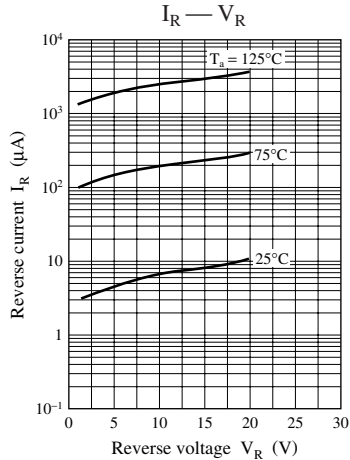
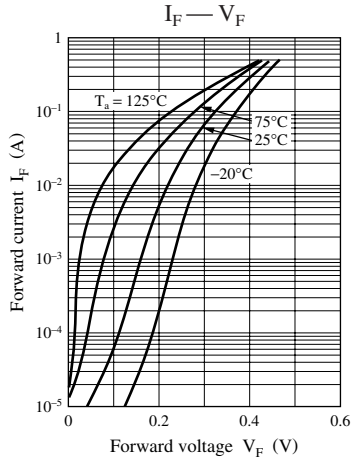
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M4E

Internal Connection





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