

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})
- Mini type 3-pin package

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	20	V
Repetitive peak reverse-voltage	V_{RRM}	20	V
Average forward current	$I_{F(AV)}$	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	$^\circ\text{C}$

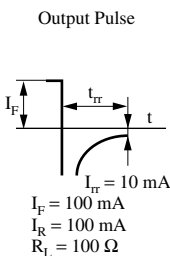
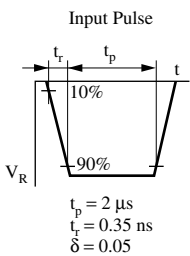
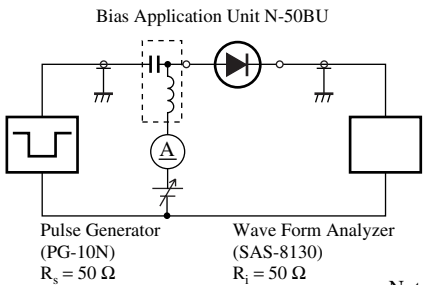
Note) *: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

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

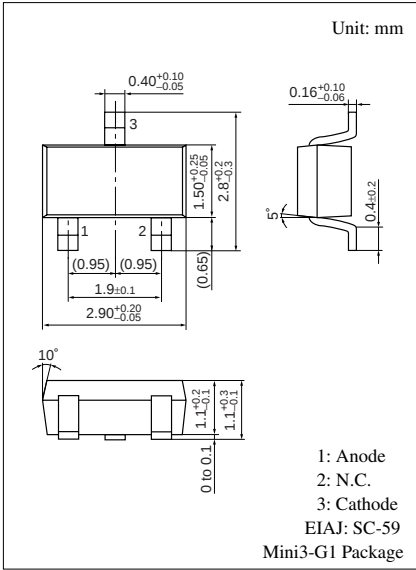
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	$V_R = 10 \text{ V}$			30	μA
Forward voltage (DC)	V_{F1}	$I_F = 500 \text{ mA}$			0.5	V
	V_{F2}	$I_F = 10 \text{ mA}$			0.3	
Terminal capacitance	C_t	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$		60		pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 100 \text{ mA}$ $I_{rr} = 10 \text{ mA}, R_L = 100 \Omega$		5		ns

Note) 1. 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.

2. Rated input/output frequency: 400 MHz 3. *: t_{rr} measuring instrument

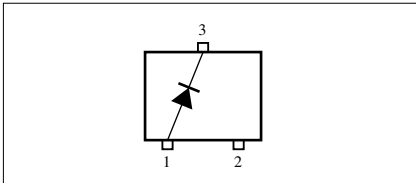


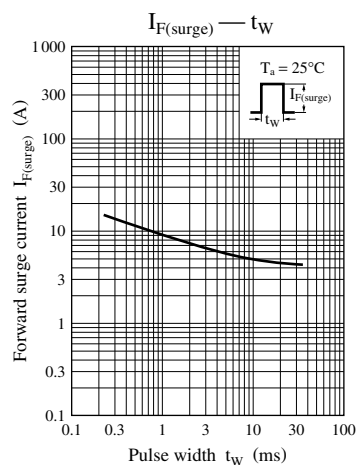
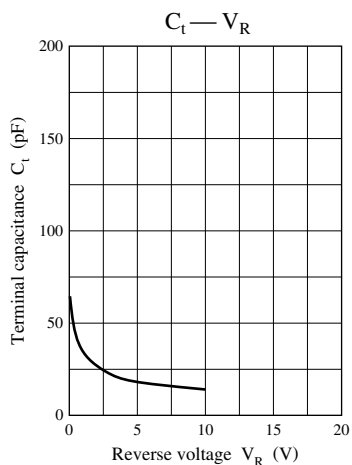
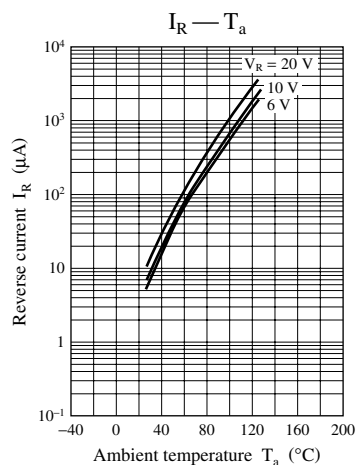
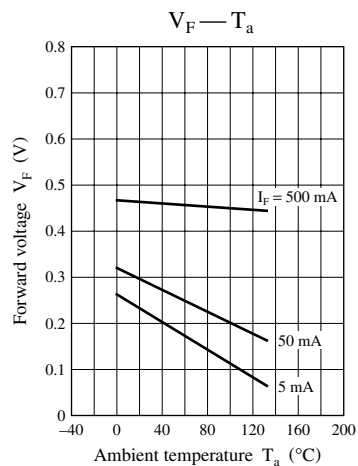
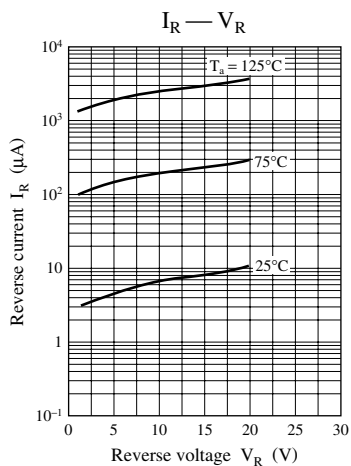
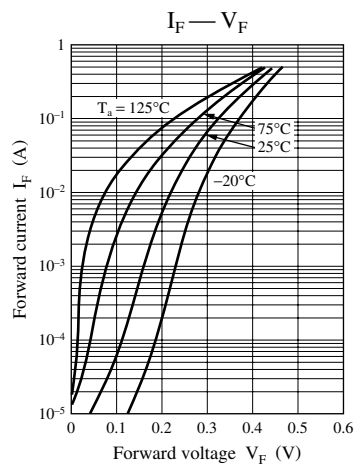
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M4E

Internal Connection





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