

MA3X748

Silicon epitaxial planar type

For high-frequency rectification

■ Features

- Low V_F type of MA2Z720
- High rectification efficiency caused by its low forward-rise-voltage (V_F)
- 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 (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	V
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. Schottky barrier diode 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



