

MA4X796

Silicon epitaxial planar type

For super-high speed switching circuit

For small current rectification

■ Features

- Two MA3X787s in the same direction are contained in one package
- Allowing to rectify under ($I_{F(AV)} = 100 \text{ mA}$) condition
- Optimum for high-frequency rectification because of its short reverse recovery time (t_{rr})
- Low V_F (forward rise voltage), with high rectification efficiency
- Reverse voltage V_R (DC value) = 50 V guaranteed

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	50	V
Repetitive peak reverse voltage	V_{RRM}	50	V
Peak forward current	Single	I_{FM}	mA
	Double*2		
Average forward current	Single	$I_{F(AV)}$	mA
	Double*2		
Non-repetitive peak forward surge current*1	I_{FSM}	1	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Note) *1 : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)

*2 : Value per chip

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

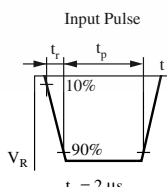
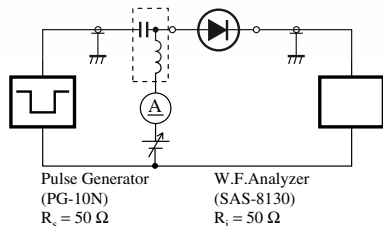
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	$V_R = 50 \text{ V}$			30	μA
Forward voltage (DC)	V_F	$I_F = 100 \text{ mA}$			0.55	V
Terminal capacitance	C_t	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$		25		pF
Reverse recovery time*	t_{rr}	$I_F = I_R = 100 \text{ mA}$ $I_{rr} = 10 \text{ mA}, R_L = 100 \Omega$		3		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: 200 MHz

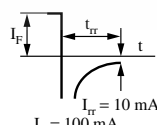
3. *: t_{rr} measuring circuit

Bias Application Unit N-50BU

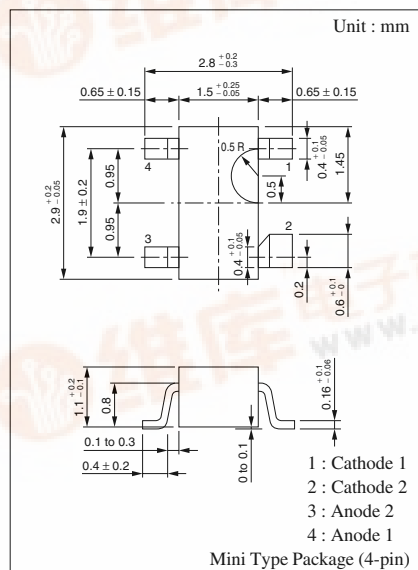


$t_p = 2 \mu\text{s}$
 $t_r = 0.35 \text{ ns}$
 $\delta = 0.05$

Output Pulse



$I_F = 100 \text{ mA}$
 $I_R = 100 \text{ mA}$
 $R_L = 100 \Omega$



Marking Symbol: M4B

Internal Connection

