

# MA4X746 (MA746)

## Silicon epitaxial planar type

For super high speed switching  
For small current rectification

### ■ Features

- Two isolated elements are contained in one package, allowing high-density mounting
- Forward current (Average)  $I_{F(AV)} = 200$  mA and Reverse voltage  $V_R < 50$  V are achieved
- Optimum for high frequency rectification because of its short reverse recovery time  $t_{rr}$
- Low forward voltage  $V_F$  and good rectification efficiency

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

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	50	V
Repetitive peak reverse voltage	$V_{RRM}$	50	V
Non-repetitive peak forward surge current	Single	1	A
	Double *	0.75	
Peak forward current	Single	300	mA
	Double *	225	
Forward current (Average)	Single	200	mA
	Double *	150	
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

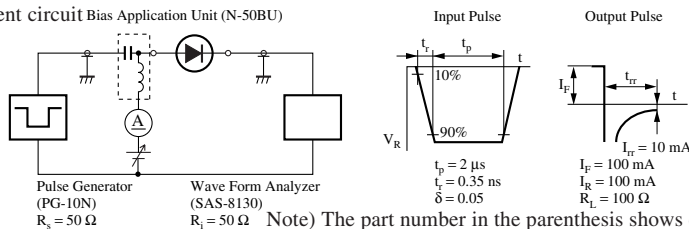
Note) \*: Value of each diode in double diodes used.

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

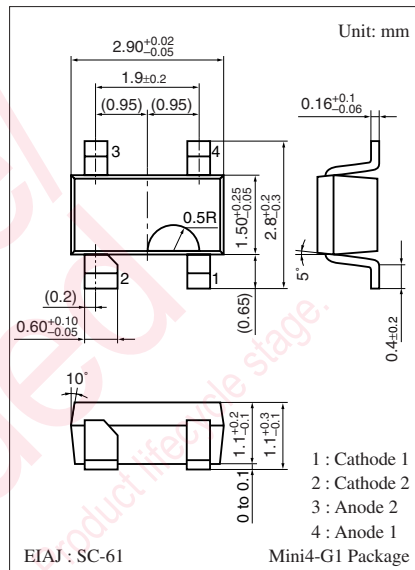
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F1}$	$I_F = 30$ mA			0.36	V
	$V_{F2}$	$I_F = 200$ mA			0.55	
Reverse current	$I_R$	$V_R = 50$ V			200	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		30		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 100$ mA $I_{tr} = 10$ mA, $R_L = 100$ $\Omega$		3.0		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 1 GHz.
4. \*:  $t_{rr}$  measurement circuit Bias Application Unit (N-50BU)

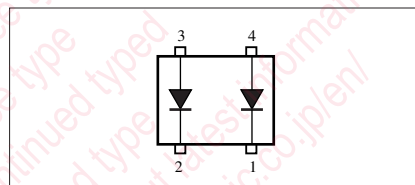


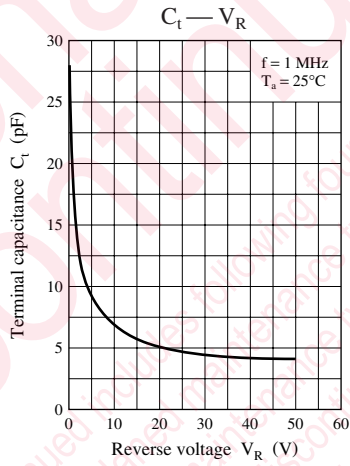
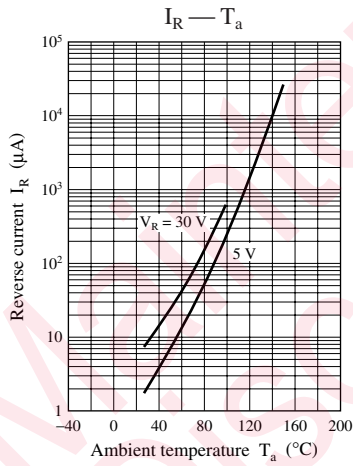
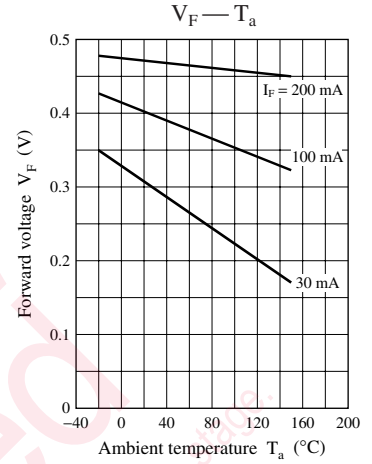
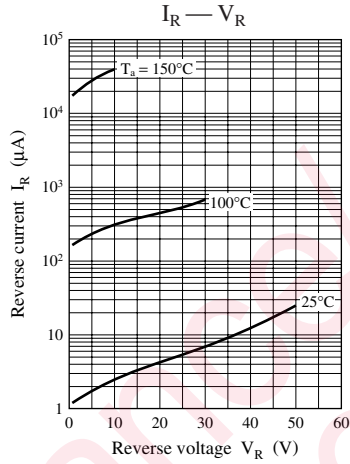
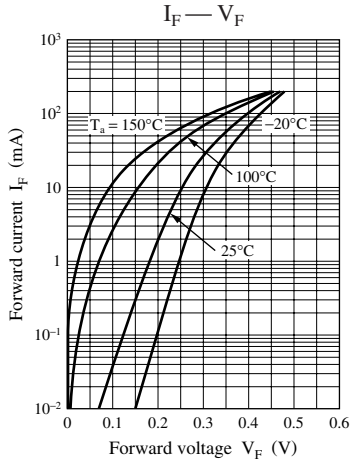
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M3M

Internal Connection





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