

# 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	$^\circ\text{C}$

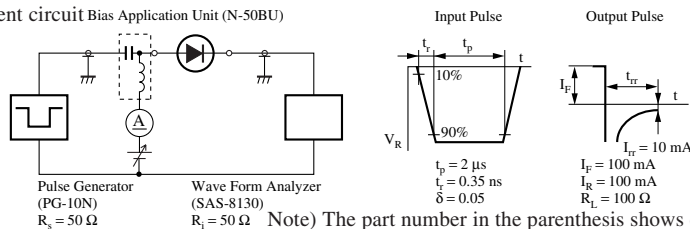
Note) \*: Value of each diode in double diodes used.

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

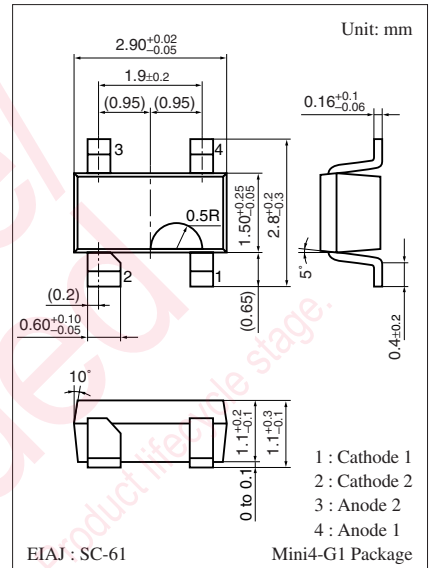
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F1}$	$I_F = 30$ mA			0.36	V
	$V_{F2}$	$I_F = 200$ mA			0.55	
Reverse current	$I_R$	$V_R = 50$ V			200	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		30		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 100$ mA $I_{tr} = 10$ 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)

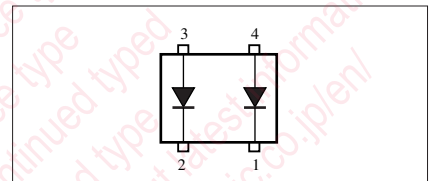


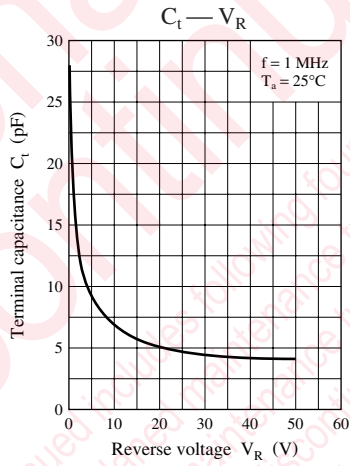
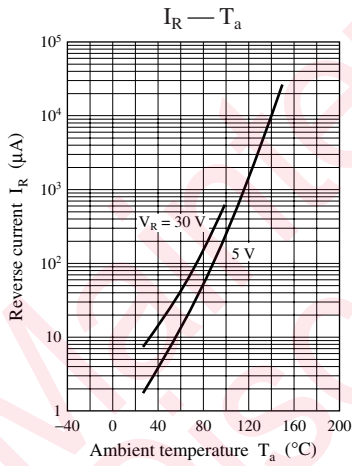
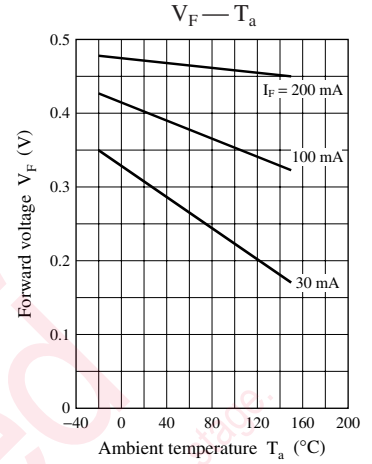
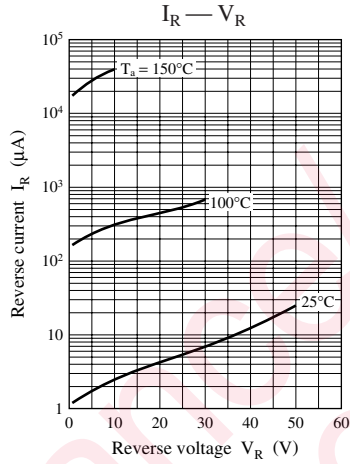
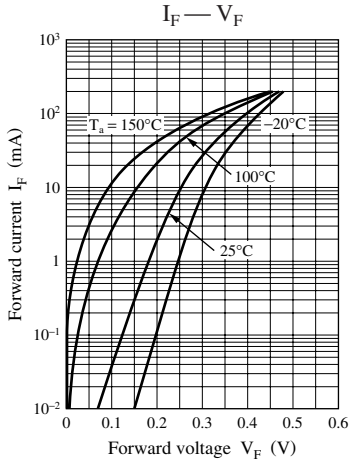
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M3M

Internal Connection





## utions in using the technical information and scribed in this book

s book is to be exported or provided to non-residents, the laws and  
rd to security export control, must be observed.

ly to show the main characteristics and application circuit examples  
l property right or other right owned by our company or any other  
any as to the infringement upon any such right owned by any other  
rmation described in this book.

standard applications or general electronic equipment (such as office  
and household appliances).

ng applications:

biles, traffic control equipment, combustion equipment, life support  
reliability are required, or if the failure or malfunction of the prod-

ck are subject to change without notice for modification and/or im-  
use of the products, therefore, ask for the most up-to-date Product  
atisfy your requirements.

bsolute maximum rating and the guaranteed operating conditions  
(.). Especially, please be careful not to exceed the range of absolute  
er-off and mode-switching. Otherwise, we will not be liable for any

take into the consideration of incidence of break down and failure  
n the systems such as redundant design, arresting the spread of fire  
al injury, fire, social damages, for example, by using the products.

own and characteristics change due to external factors (ESD, EOS,  
mounting or at customer's process. When using products for which  
shelf life and the elapsed time since first opening the packages.

ly or partially, without the prior written permission of Matsushita

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View MA4X74600L on WIN SOURCE](#)

 [Panasonic Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management