

# MA3X704 (MA704), MA3X704A (MA704A)

Silicon epitaxial planar type

For switching  
For wave detection

**■ Features**

- Low forward voltage  $V_F$  and good wave detection efficiency  $\eta$
- Small temperature coefficient of forward characteristic
- Small reverse current  $I_R$

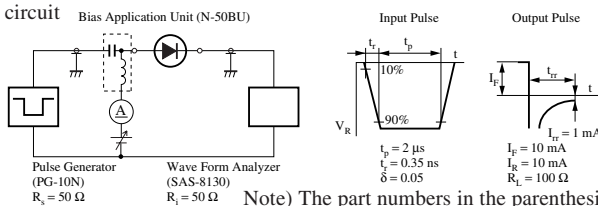
**■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$**

Parameter	Symbol	Rating	Unit	
Reverse voltage	MA3X704	$V_R$	15	V
	MA3X704A		30	
Maximum peak reverse voltage	MA3X704	$V_{RM}$	15	V
	MA3X704A		30	
Peak forward current	$I_{FM}$	150	mA	
Forward current	$I_F$	30	mA	
Junction temperature	$T_j$	125	$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$	

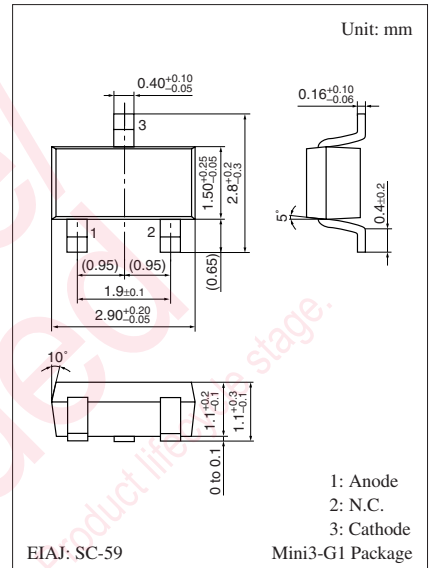
**■ Electrical Characteristics  $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$**

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F1}$	$I_F = 1 \text{ mA}$			0.4	V
	$V_{F2}$	$I_F = 30 \text{ mA}$			1.0	
Reverse current	$I_R$	MA3X704	$V_R = 15 \text{ V}$		200	nA
		MA3X704A	$V_R = 30 \text{ V}$		300	
Terminal capacitance	$C_t$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$		1.5		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 10 \text{ mA}$ $I_{rr} = 1 \text{ mA}, R_L = 100 \Omega$		1.0		ns
Detection efficiency	$\eta$	$V_{IN} = 3 \text{ V}_{(peak)}, f = 30 \text{ MHz}$ $R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$		65		%

- 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 2 GHz.  
 4. \*:  $t_{rr}$  measurement circuit



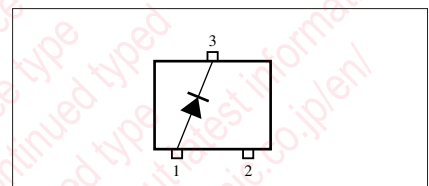
Note) The part numbers in the parenthesis show conventional part number.



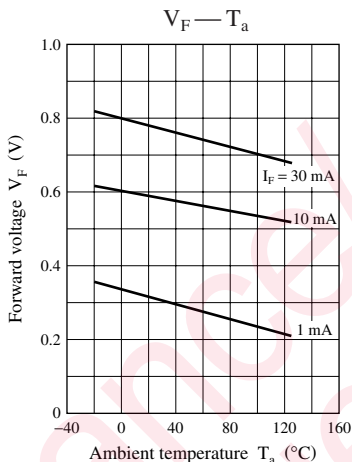
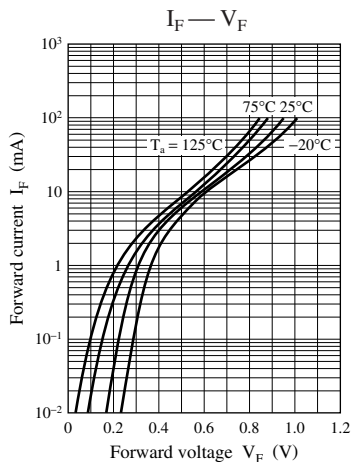
**Marking Symbol**

- MA3X704: M1K
- MA3X704A: M1L

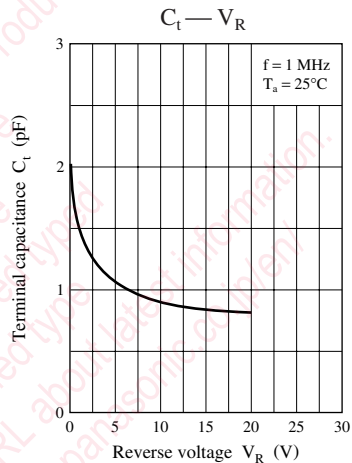
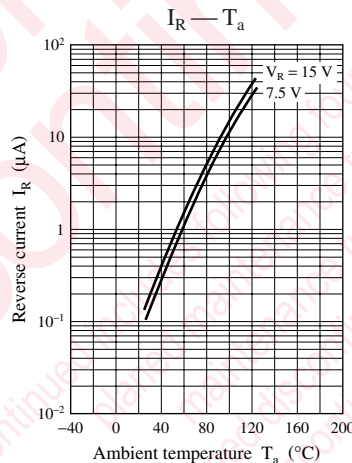
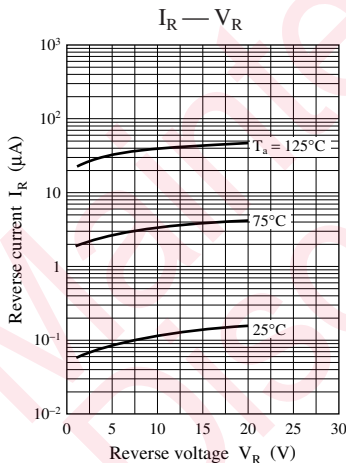
**Internal Connection**



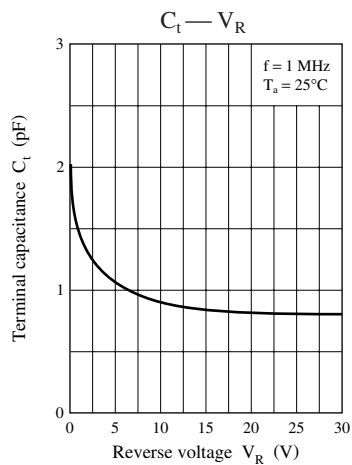
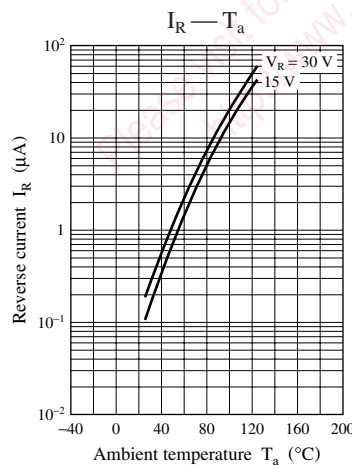
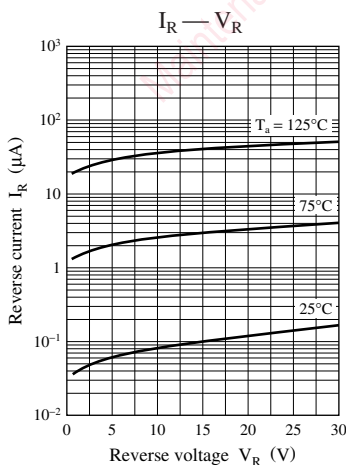
Common characteristics charts



Characteristics charts of MA3X704



Characteristics charts of MA3X704A



## 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 MA3X70400L 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