

# 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  $I_R$

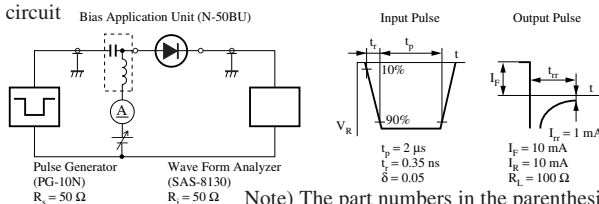
## ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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	$^\circ\text{C}$	

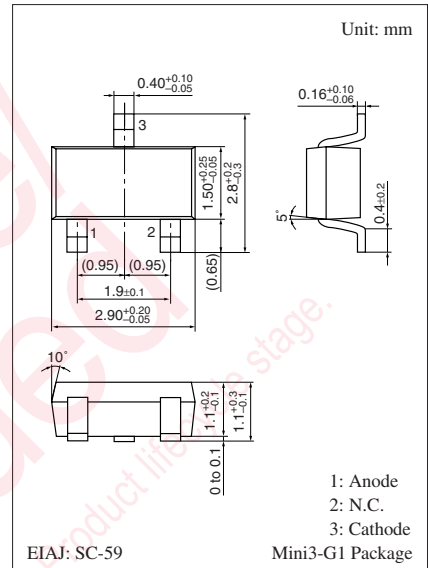
## ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

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	MA3X704	$I_R$	$V_R = 15 \text{ V}$		200	nA
			$V_R = 30 \text{ V}$		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	$\eta$	$V_{IN} = 3 \text{ V}_{(\text{peak})}, f = 30 \text{ MHz}$ $R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$		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



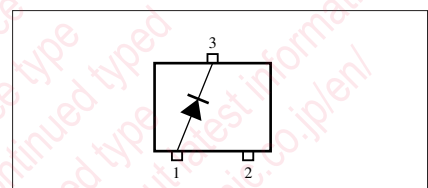
Note) The part numbers in the parenthesis show conventional part number.



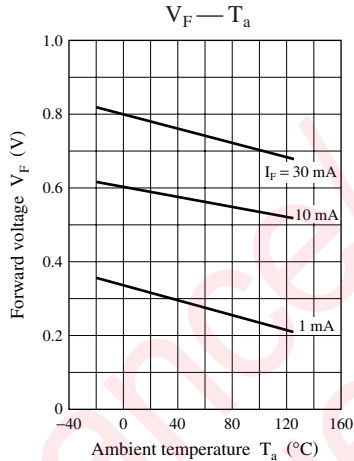
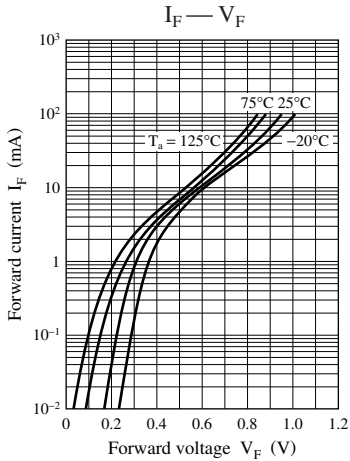
## Marking Symbol

- MA3X704: M1K
- MA3X704A: M1L

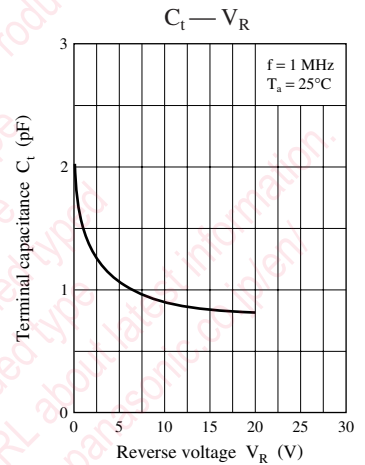
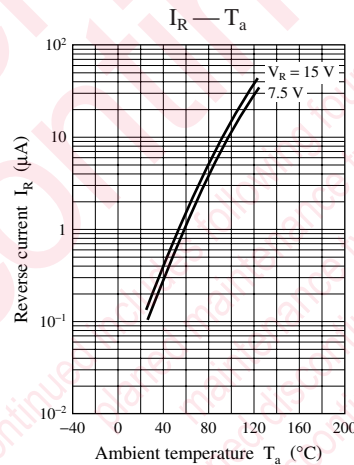
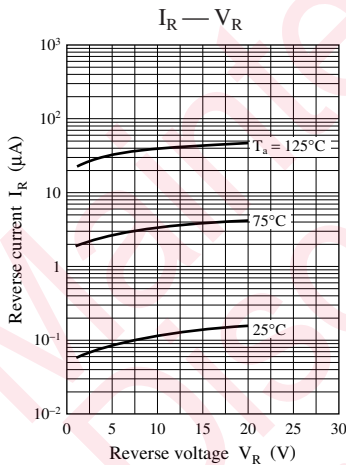
## Internal Connection



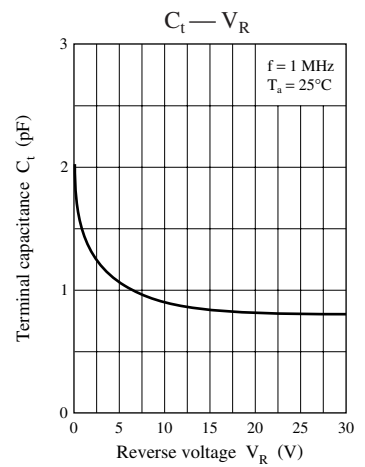
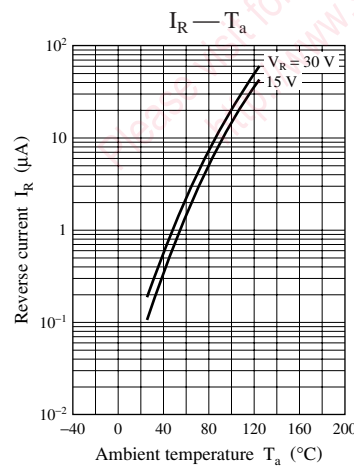
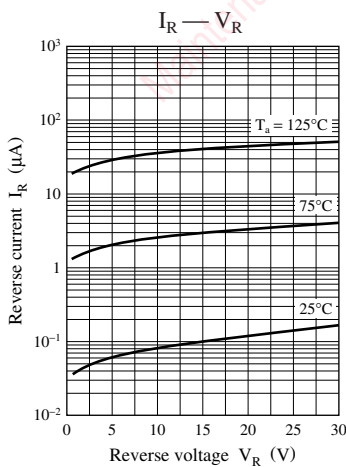
Common characteristics charts



Characteristics charts of MA3X704



Characteristics charts of MA3X704A



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