

MA3X704 (MA704), MA3X704A (MA704A)

Silicon epitaxial planar type

For switching

For wave detection

■ Features

- Low forward voltage V_F and good wave detection efficiency η
- 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
			30	
Maximum peak reverse voltage	MA3X704	V_{RM}	15	V
			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 $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

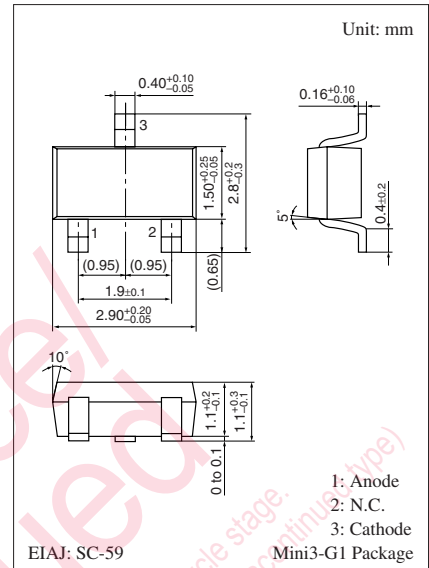
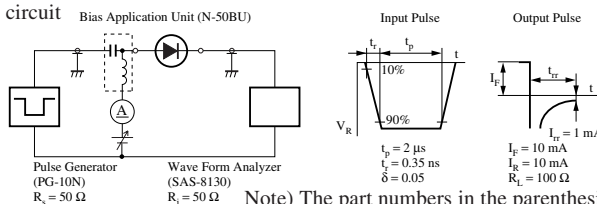
Parameter	Symbol	Conditions	Min	Typ	Max	Unit	
Forward voltage	V_{F1}	$I_F = 1 \text{ mA}$			0.4	V	
		$I_F = 30 \text{ mA}$			1.0		
Reverse current	MA3X704	I_R	$V_R = 15 \text{ V}$			200	nA
			$V_R = 30 \text{ V}$			300	
Terminal capacitance	C_t	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$		1.5		pF	
Reverse 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	η	$V_{IN} = 3 \text{ V}_{(peak)}, f = 30 \text{ MHz}$ $R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$		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.

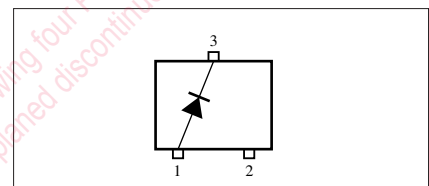
4. *: t_{rr} measurement circuit



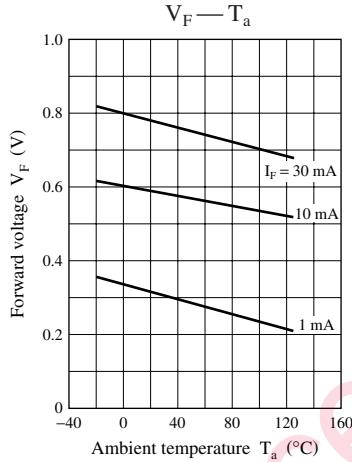
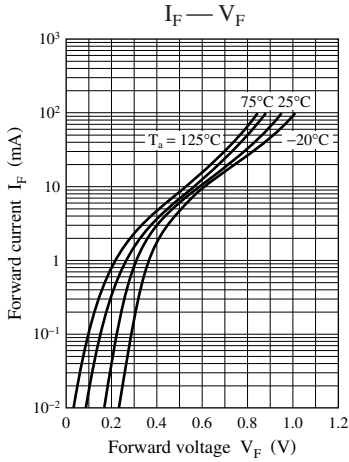
Marking Symbol

- MA3X704: M1K
- MA3X704A: M1L

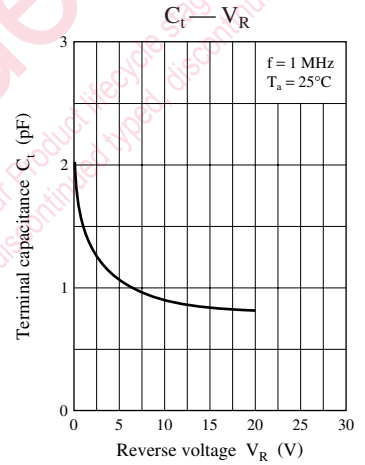
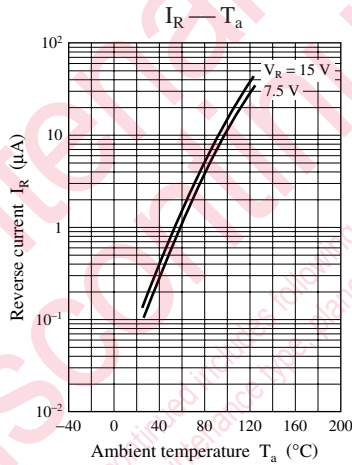
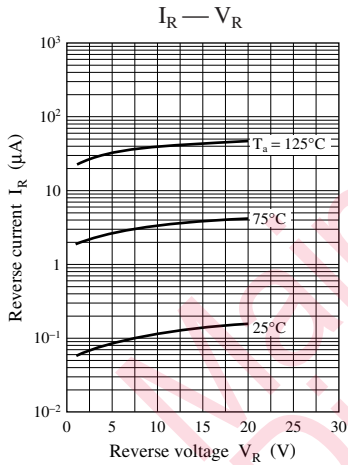
Internal Connection



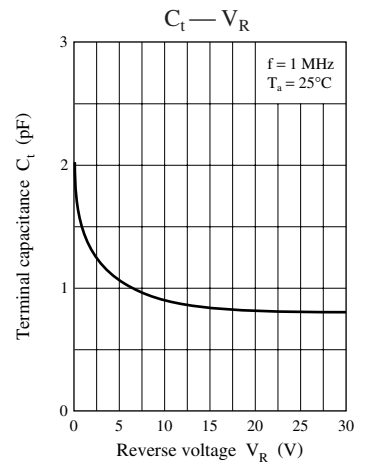
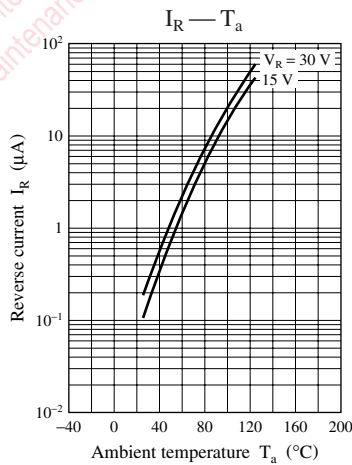
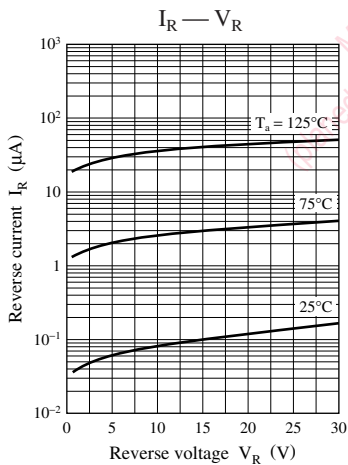
Common characteristics charts



Characteristics charts of MA3X704



Characteristics charts of MA3X704A



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