

MA3X704, MA3X704A

Silicon epitaxial planar type

For switching circuits

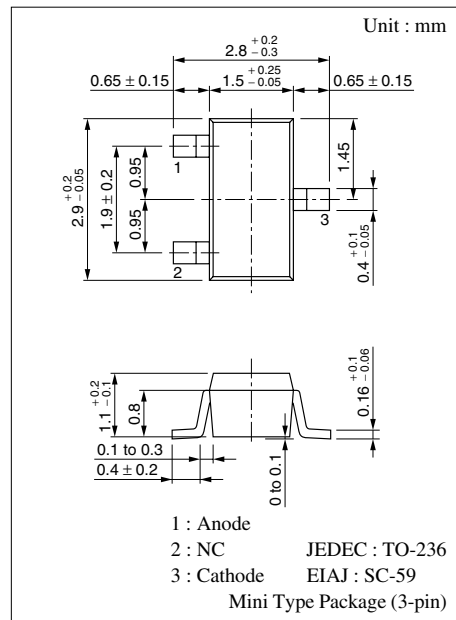
For wave detection circuit

■ Features

- Low forward rise voltage (V_F) and satisfactory wave detection efficiency (η)
- Small temperature coefficient of forward characteristic
- Extremely low reverse current I_R

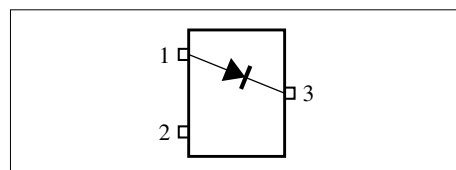
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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



Marking Symbol

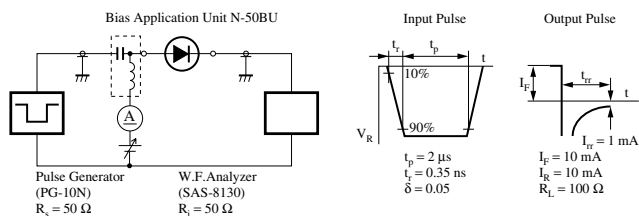
- MA3X704 : M1K
 - MA3X704A : M1L
- Internal Connection



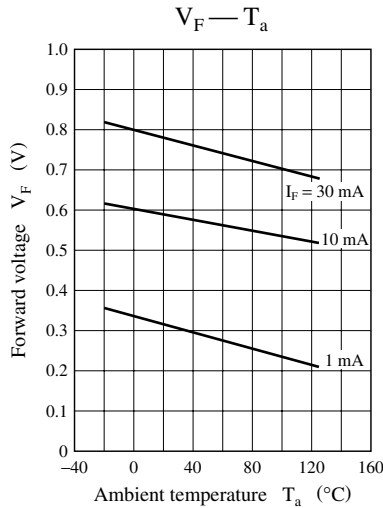
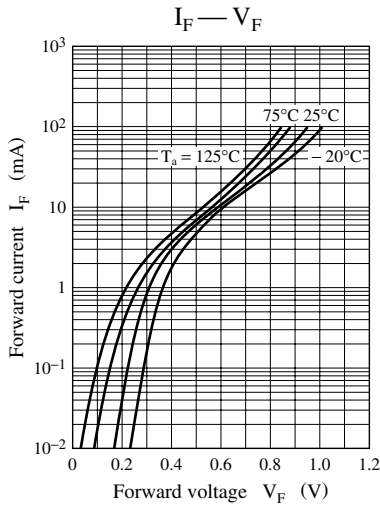
■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	MA3X704	I_R	$V_R = 15\text{ V}$		200	nA
	MA3X704A		$V_R = 30\text{ V}$		300	
Forward voltage (DC)		V_{F1}	$I_F = 1\text{ mA}$		0.4	V
		V_{F2}	$I_F = 30\text{ mA}$		1	V
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		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		%

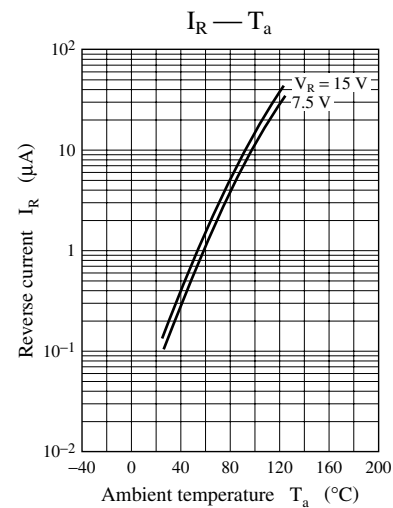
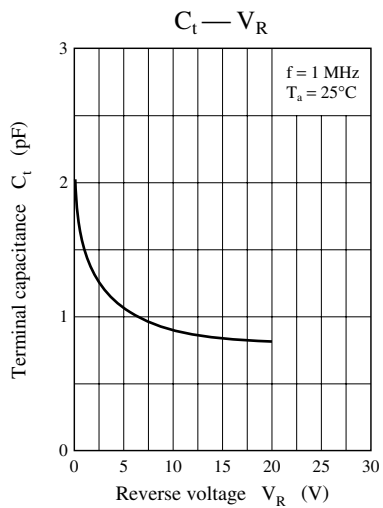
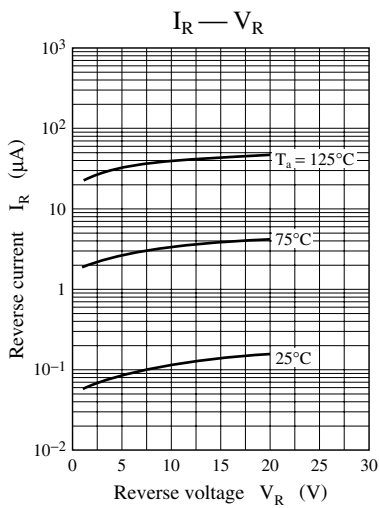
- Note) 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment
2. Rated input/output frequency: 2 000 MHz
3. * : t_{rr} measuring instrument



Common characteristics charts



Characteristics charts of MA3X704



Characteristics charts of MA3X704A

