

MA707

Silicon epitaxial planer type

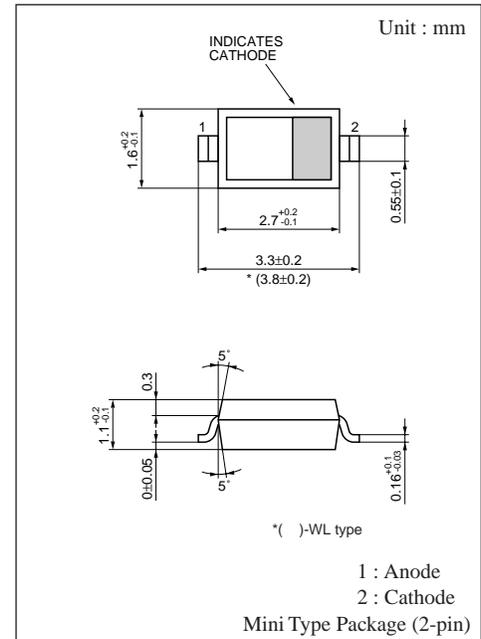
For UHF mixer

■ Features

- Small forward voltage V_F
- Large conversion gain GC and optimum for UHF mixer
- Mini package, enabling down-sizing of the equipment and automatic insertion through taping

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	5	V
Forward voltage	V_F	0.5	V
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	- 55 to + 125	$^\circ\text{C}$



Marking Symbol : 5B

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

Parameter	Symbol	Condition	min	typ	max	Unit
Forward current (DC)	I_F	$V_F = 0.5\text{V}$	35		100	mA
Reverse current (DC)	I_R	$V_R = 5\text{V}$			35	μA
Forward voltage (DC)	V_F	$I_F = 2\text{mA}$		0.25		V
Reverse yield voltage (DC)	$V_{(BR)R}$	$I_R = 1\text{mA}$	5			V
Terminal capacitance	C_t	$V_R = 0.5\text{V}, f = 1\text{MHz}$	0.65	0.85	1.05	pF
Conversion gain	$GC^{*1,2}$	$R_F = 890\text{MHz}, L_O = 935\text{MHz}, I_F = 45\text{MHz}$	- 7	- 5		dB
Static breakdown strength		$C = 100\text{pF}$ Breakdown judgment point $I_R \geq 35\mu\text{A}$	100	200		V

Note 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on charge of a human body and leakage from the equipment used.

2. Noise index is 8.5dB.

3. Rated input/output frequency : 935MHz

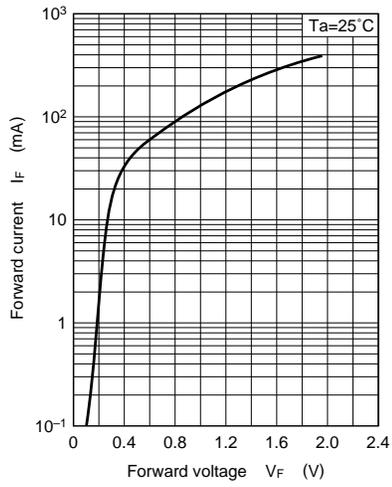
4. *1 Judgement is to be made per each chip lot. Sampling of LTPD= 20% and n=11 is guaranteed.

*2 $GC = -7\text{dB}$ min. Any substandard product will be negotiated by both parties.

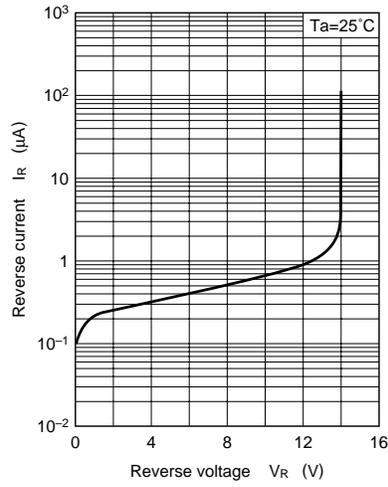
■ Marking



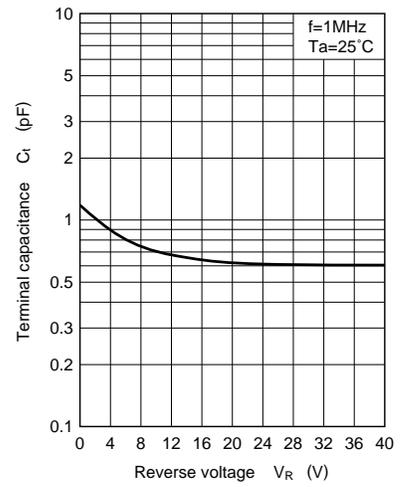
$I_F - V_F$



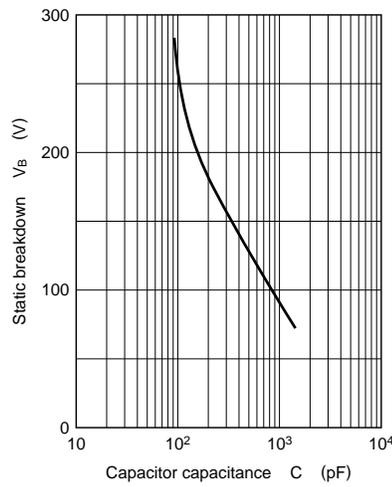
$I_R - V_R$



$C_t - V_R$



$V_B - C$



$GC - P_{LOC}$

