

GN01019B (Tentative)**GaAs IC (with built-in ferroelectric)**

For cellular phone
Other communication equipment

■ Features

- UHF band amplifier with AGC
- High gain, low current consumption (PG : 18dB, I_D : 7mA)
- Small surface-mounting mini-type 6-pin package

■ Absolute Maximum Ratings ($T_a=25\pm 3^\circ\text{C}$)

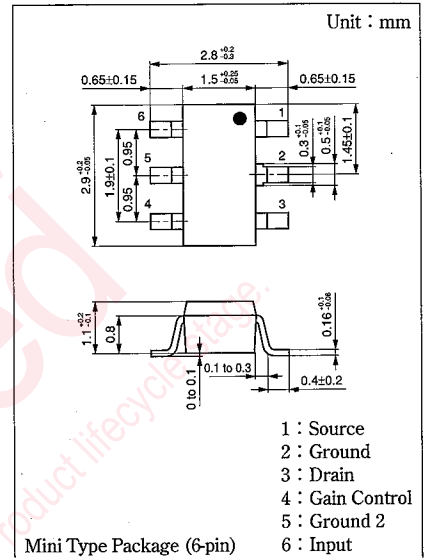
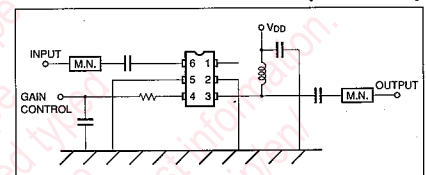
Parameter	Symbol	Rating	Unit
Power supply voltage	V_{DD}	6	V
Gain control voltage	V_{AGC}	0 to 1.2	V
Drain current	I_{DD}	20	mA
Allowable power dissipation	P_D	200	mW
Operating temperature	T_{opr}	-30 to +90	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +120	$^\circ\text{C}$

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

Parameter	Symbol	Test method	Condition	Min	Typ	Max	Unit
Current consumption	I_D		$V_{DD}=3\text{V}$, $V_{AGC}=1\text{V}$	3	7	10	mA
Power gain 1	PG1	(1), (2)	$V_{DD}=3\text{V}$, $V_{AGC}=1\text{V}$, $f=900\text{MHz}$	15	18		dB
Power gain 2	PG2	(1), (2)	$V_{DD}=3\text{V}$, $V_{AGC}=0\text{V}$, $f=900\text{MHz}$		-30	-20	dB
Noise figure	NF	(1), (2)	$V_{DD}=3\text{V}$, $V_{AGC}=1\text{V}$, $f=900\text{MHz}$		2.2	3.5	dB

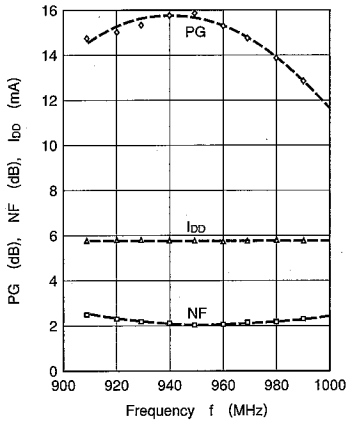
Test method (1) : Sampling guarantee (AQL=0.65%)

(2) : Test the PG/NF measurement with the specified circuit shown in the separate sheet.
(Measured value with stab tuner: NF: 1.5dB, PG: 15dB)

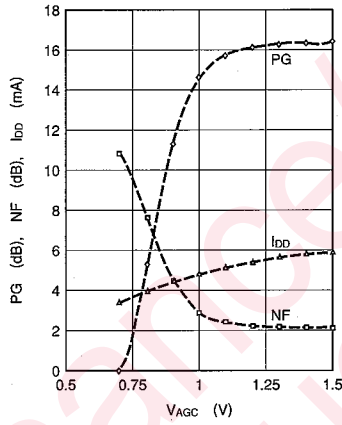
**■ Measurement Circuit (tentative)**

Note : This is the tentative development specification and may be changed without notice.
Refer to the update product specification when final design is to be established.

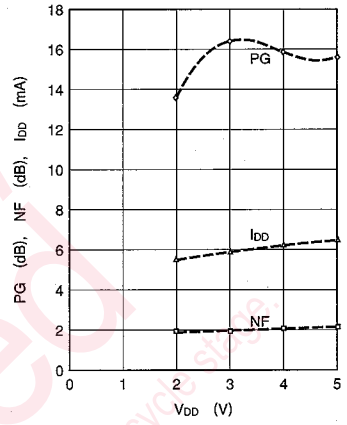
PG, NF, $I_{DD}-f$



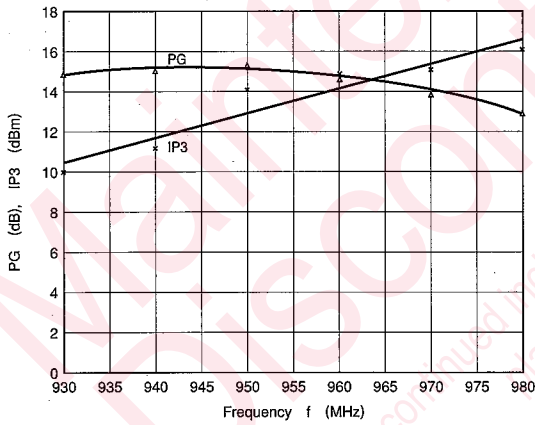
PG, NF, $I_{DD}-V_{AGC}$



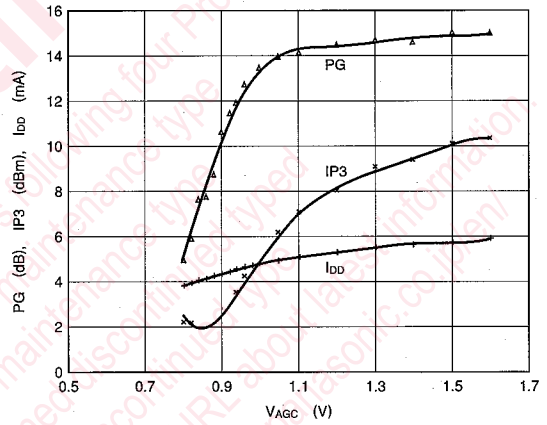
PG, NF, $I_{DD}-V_{DD}$



PG, IP_3 -Frequency



PG, IP_3 , $I_{DD}-V_{AGC}$



GaAs
MMIC

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