

GN01034N(Tentative)

GaAs IC

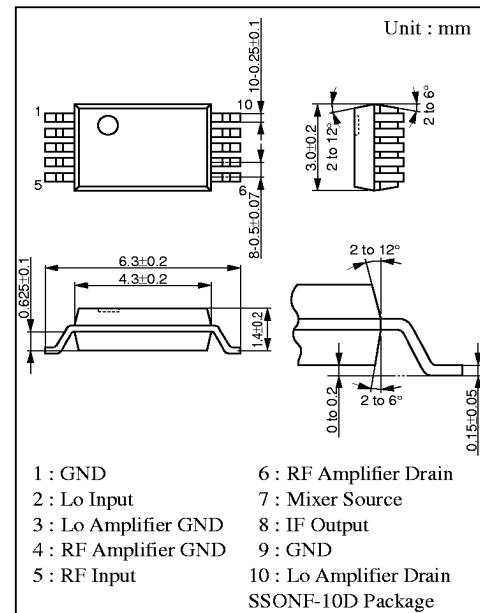
For receiving front-end amplifier of cellular phone

■ Features

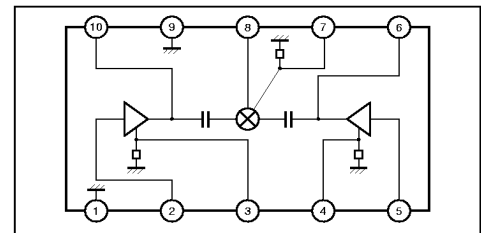
- Low-voltage, positive power supply operation
- Low current operation
- Low noise

■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Power supply voltage	V _{DD}	5	V
Circuit current	I _{DD}	10	mA
Max input power	P _{in}	10	dBm
Allowable power dissipation	P _D	50	mW
Operating temperature	T _{opr}	- 30 to + 90	°C
Storage temperature	T _{stg}	- 30 to + 90	°C



■ Circuit-function Block Diagram

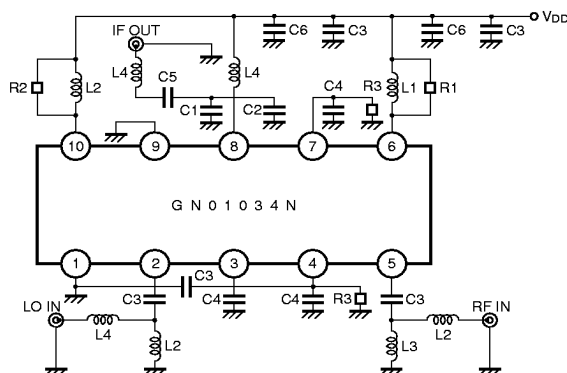


■ Electrical Characteristics (V_{DD}= 3.7V, Ta = 25 ± 2°C)

Parameter	Symbol	Test method	Condition	Min	Typ	Max	Unit
Circuit current	I _{DD}			3.5	5.5	8	mA
Conversion gain	CG	(1)	f _{LO} = 0.79GHz, P _{LO} = -15dBm f _{RF} = 0.88GHz, P _{RF} = -35dBm	13	18		dB
Noise figure	NF	(1)	f _{LO} = 0.79GHz, P _{LO} = -15dBm f _{RF} = 0.88GHz, P _{RF} = -35dBm		4.5	6	dB

Test method (1) : Design-guaranteed value

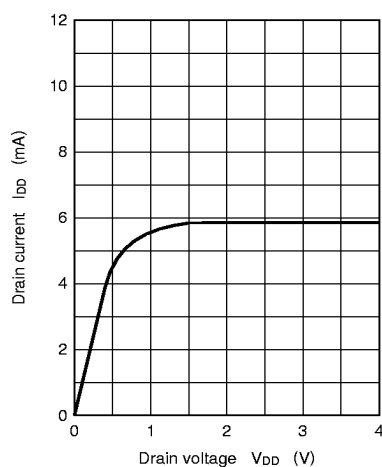
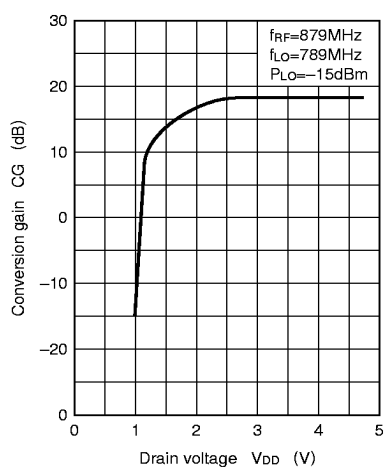
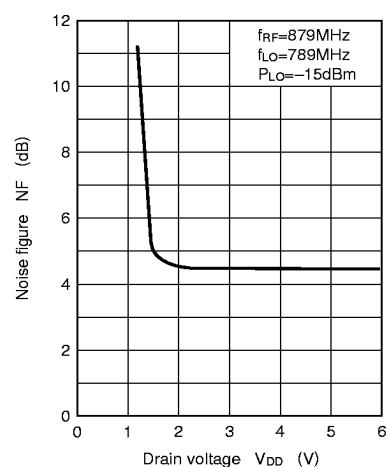
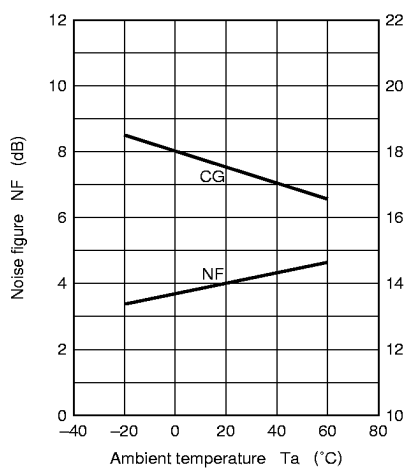
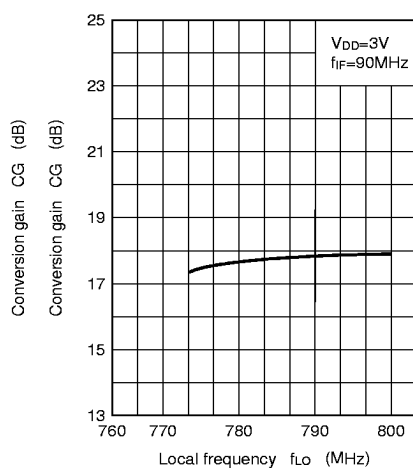
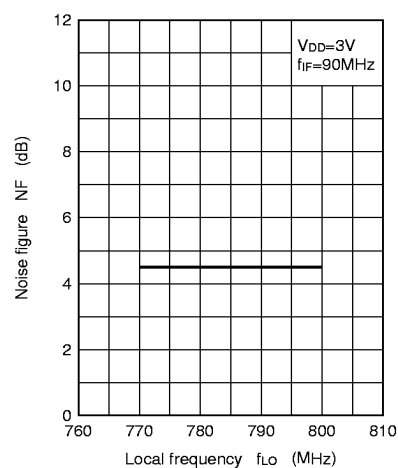
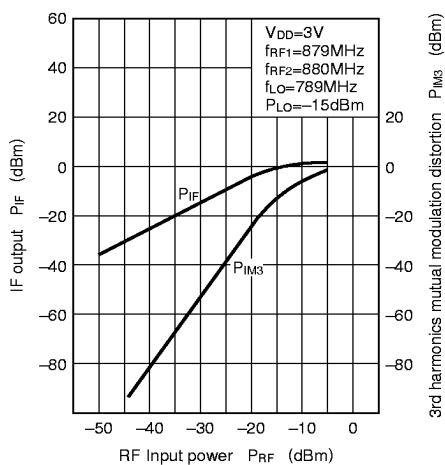
For measurement, use the circuit shown below.



(Value of each part)

R1=120Ω	L1= 15nH	C1= 4.5pF
R2= 470Ω	L2= 22nH	C2= 7pF
R3= 2.2kΩ	L3= 27nH	C3=100pF
	L4= 39nH	C4=1000pF
	L5= 390nH	C5=2000pF
		C6=1μF

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.

$I_{DD} - V_{DD}$  $CG - V_{DD}$  $NF - V_{DD}$  $CG, NF - T_a$  $CG - f_{LO}$  $NF - f_{LO}$  $P_{IF}, P_{IM3} - P_{RF}$  $NF, CG - P_{LO}$ 