

GN01038B

GaAs IC (with built-in ferroelectric)

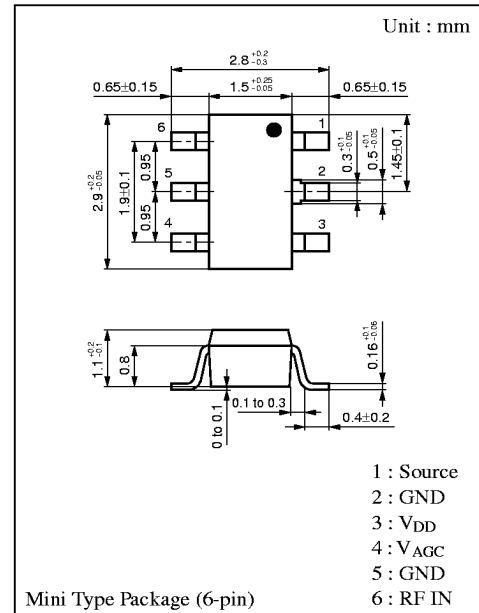
For transmitting preamplifier of cellular phone

■ Features

- Low-noise amplifier with AGC
- Single, positive power supply
- Low distortion characteristics

■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Power supply voltage	V _{DD}	8	V
Gate control voltage	V _{AGC}	0 to 2	V
Circuit current	I _{DD}	40	mA
Max input power	P _{in}	-5	dBm
Allowable power dissipation	P _D	0.2	W
Operating temperature	T _{opr}	-30 to +90	°C
Storage temperature	T _{stg}	-40 to +120	°C

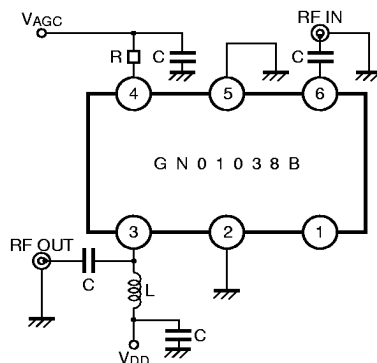


■ Electrical Characteristics (V_{DD}= 3V, Ta = 25 ± 2°C)

Parameter	Symbol	Test method	Condition	Min	Typ	Max	Unit
Circuit current	I _D		V _{AGC} =1.5V	8		20	mA
Power gain	PG1	(1), (2)	V _{AGC} =1.5V, f= 948MHz	10	12		dB
	PG2		V _{AGC} = 0V, f= 948MHz		-27	-20	dB
	PG3		V _{AGC} =1.5V, f=1441MHz	7	11		dB
	PG4		V _{AGC} = 0V, f=1441MHz		-23	-15	dB
Dynamic range	DR1	(1), (3)	PG1 - PG2	33	39		dB
	DR2		PG3 - PG4	28	34		dB
Modulation distortion	DM	(1), (3), (4)	V _{AGC} =1.5V, f= 948MHz		-68	-60	dBc

Test method (1) : The measurement circuit diagram is shown below. Input power (P_{in})= -15dBm
 (2) : Items for sampling control (AQL= 0.65%)
 (3) : Design-guaranteed items
 (4) : 21kHz bandwidth at ±50kHz separation
 (5) : Use the source pin (Pin No.1) to be open or to be connected to GND with capacitor.

■ Measurement Circuit



C=100pF
R= 4.7kΩ
L= 8.2nH

■ Marking

