

GN01037B

GaAs IC (with built-in ferroelectric)

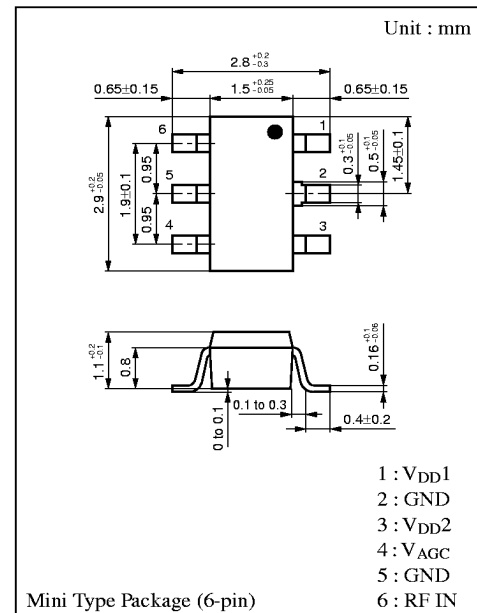
For transmitting preamplifier of cellular phone
Other communication equipment

■ Features

- Low-noise amplifier with AGC
- Single, positive power supply
- $f = 0.9\text{GHz}$

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

Parameter	Symbol	Rating	Unit
Power supply voltage	V_{DD}	8	V
Gate control voltage	V_{AGC}	0 to 2	V
Circuit current	I_{DD}	80	mA
Max input power	P_{in}	-5	dBm
Allowable power dissipation	P_D	0.2	W
Operating temperature	T_{opr}	-30 to +90	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +120	$^\circ\text{C}$

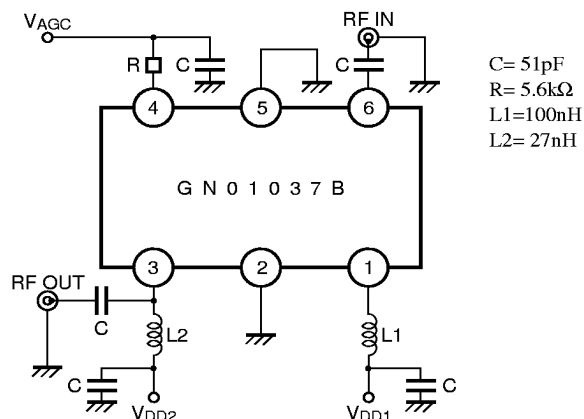


■ Electrical Characteristics ($V_{DD} = 3\text{V}$, $T_a = 25 \pm 2^\circ\text{C}$)

Parameter	Symbol	Test method	Condition	Min	Typ	Max	Unit
Circuit current	I_{DD}		$V_{AGC} = 1.5\text{V}$	25		45	mA
Conversion gain	Po1	(1)	$V_{AGC} = 1.5\text{V}$, $P_{in} = -15\text{dBm}$, $f = 948\text{MHz}$	8	11		dBm
	Po2		$V_{AGC} = 0\text{V}$, $P_{in} = -15\text{dBm}$, $f = 948\text{MHz}$		-29	-22	dBm
Modulation distortion	DM	(1), (2)	$V_{AGC} = 1\text{V}$, $P_{in} = -15\text{dBm}$, $f = 948\text{MHz}$, $\pm 50\text{kHz}$ detuning, 21kHz bandwidth	-55	-60		dBc

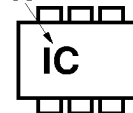
Test method (1) : For measurement, use the circuit shown below.
(2) : Design-guaranteed items

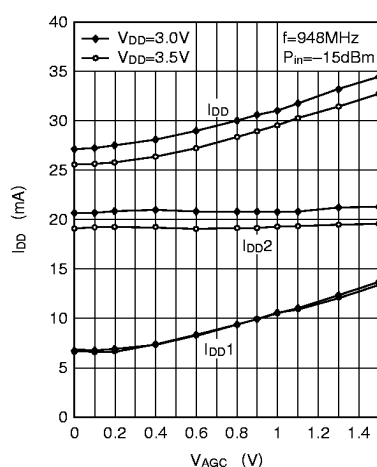
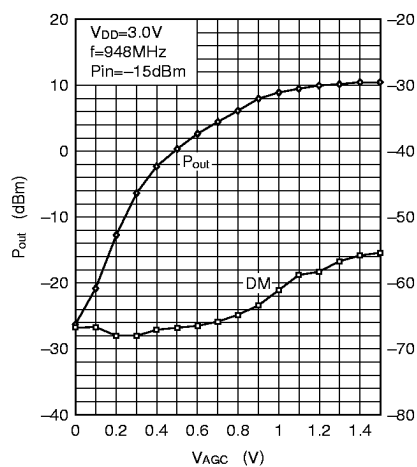
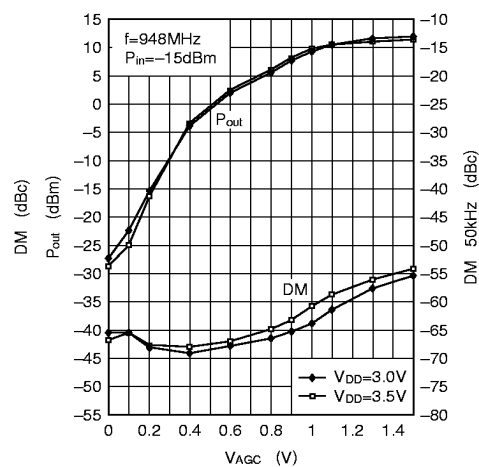
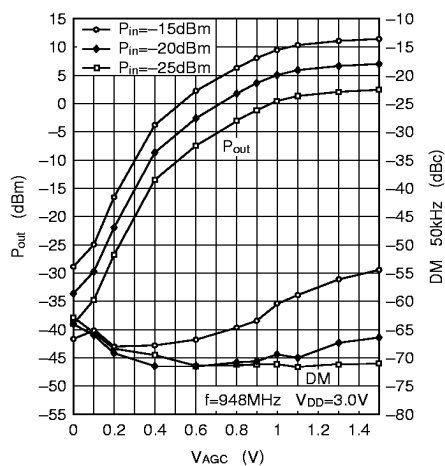
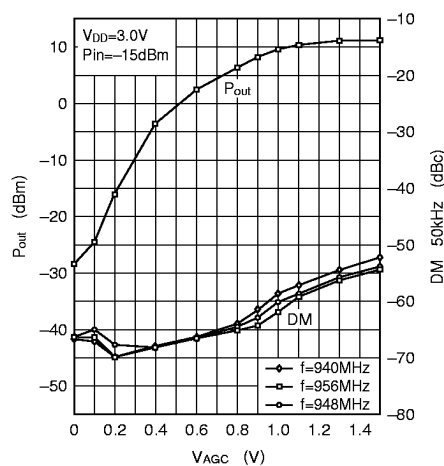
■ Measurement Circuit



■ Marking

Part Number



$I_{DD} - V_{AGC}, V_{DD}$  $P_{out}, DM - V_{AGC}$  $P_{out}, DM - V_{AGC}, V_{DD}$  $P_{out}, DM - V_{AGC}, P_{in}$  $P_{out}, DM - V_{AGC}, f$  $P_{out}, DM - V_{AGC}$ 