

GN01064B

GaAs IC (with built-in ferroelectric)

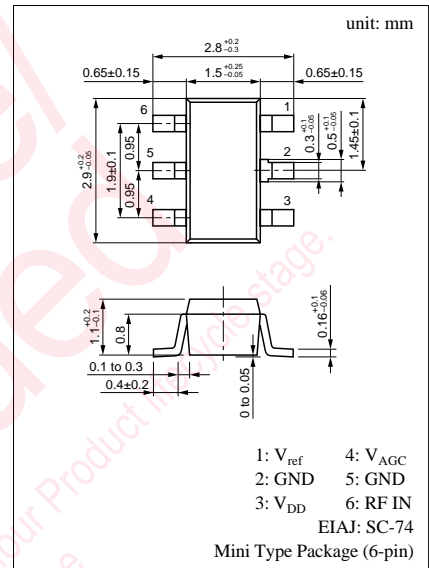
Variable gain amplifier for a cellular phone

■ Features

- Low distortion characteristics
- Low consumption current
- Small package: Mini 6pin

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Power supply voltage	V _{DD}	5	V
Gate control voltage	V _{AGC}	0 to 3	V
Circuit current	I _{DD}	40	mA
Max input power	P _{in}	0	dBm
Allowable power dissipation	P _D	200	mW
Operating ambient temperature	T _{opr}	-30 to +90	°C
Storage temperature	T _{stg}	-40 to +120	°C



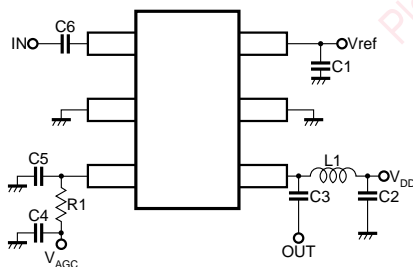
Marking Symbol: IR

■ Electrical Characteristics (V_{DD}, V_{ref} = 3.0V, f = 940MHz, Ta = 25 ± 3°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Circuit current	I _{DD} ^{*1}	V _{AGC} = 2V, P _{in} = -15dBm		9	12	mA
Power gain 1	PG ₁ ^{*1}	V _{AGC} = 2V, P _{in} = -15dBm	10	13		dB
Power gain 2	PG ₂ ^{*1}	V _{AGC} = 1V, P _{in} = -15dBm	-29	-22	18	dB
Modulation distortion	DM ^{*1,2}	V _{AGC} = 1 to 2V, P _{in} = ≤ -7dBm P _{out} = ≤ 0dB ±50kHz Detuning, 21kHz Bandwidth		-65	-60	dBc

*¹ Measurement circuit is shown in the following diagram.*² Design-guaranteed items.

■ Measurement Circuit



(Component values)

C1 = 10nF

L1 = 27nH

C2 = 100pF + 1000pF

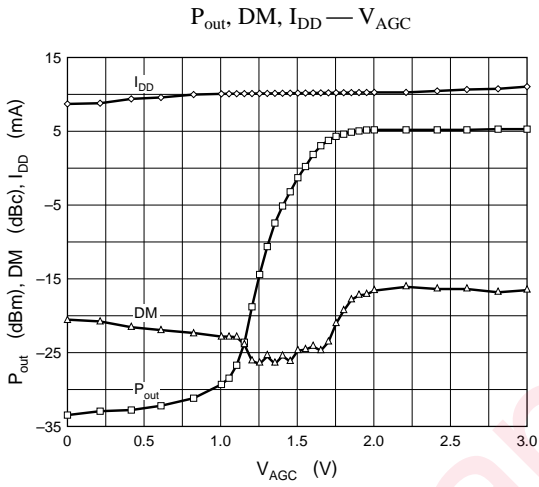
R1 = 4.7kΩ

C3 = 30pF

C4 = 1000pF

C5 = 1000pF

C6 = 30pF



Maintenance/Discontinued includes following four Product lifecycle stage.
planned maintenance type
maintenance type
planned discontinued type
discontinued type
Please visit following URL about latest information.
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Caution for Safety

 **DANGER**

■ This product contains Gallium Arsenide (GaAs).

GaAs powder and vapor are hazardous to human health if inhaled or ingested. Do not burn, destroy, cut, cleave off, or chemically dissolve the product. Follow related laws and ordinances for disposal. The product should be excluded from general industrial waste or household garbage.

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