

UHF BAND GaAs POWER AMPLIFIER IC

DESCRIPTION

MGF7109A is a GaAs monolithic microwave integrated circuits for use in 900MHz band power amplifiers.

FEATURES

- Low supply voltage operation
3.4V
- High output power
30.5dBm(Typ.)@925 to 940MHz
- High efficiency
 η t=55%(Typ.) @ Po=29.3dBm, Vd1 control
- Small size
10×9.2×1.8mm
- Surface mount package(lead less)
- 2 Stage Amplifier

APPLICATION

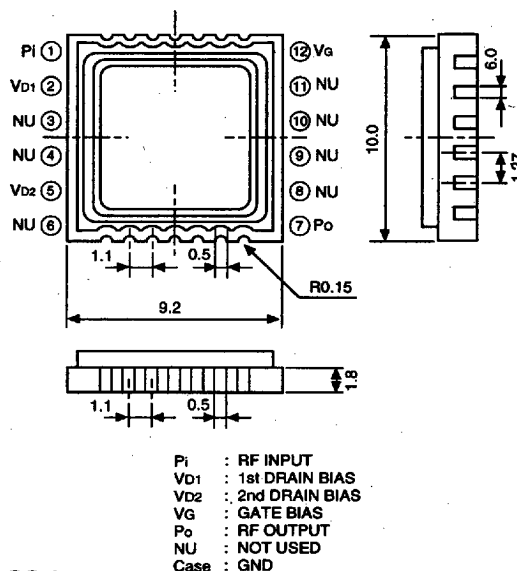
900MHz band handheld phone

QUALITY GRADE

- GG

OUTLINE DRAWING

Unit: millimeters



GC-1

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Ratings	Unit
Vd1, Vd2	Drain voltage	5.0	V
Vg	Gate voltage	-3.5	V
Pi	Input power	12	dBm
Tc(op)	Operating case temperature	-25 to +90	°C
Tstg	Storage temperature	-40 to +120	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test conditions (Note1)	Limits			Unit
			Min	Typ	Max	
f	Frequency		925	—	940	MHz
Po	Output power	Vd1 = Vd2 = 3.4V Pi = 7dBm	30.0	30.5	—	dBm
IDt	Total drain current		—	490	550	mA
2SP	2nd harmonics	Vd1 ≤ 3.4V, Vd2 = 3.4V Pi = 7dBm,	—	—	-25	dBc
3SP	3rd harmonics	Po = 29.3dBm (Vd1 cont.)	—	—	-25	dBc
IG	Gate current		—	1	3	mA

Note1 : Z0=ZL=50Ω, Vg=-2.2V

