

UHF BAND GaAs POWER AMPLIFIER IC

**DESCRIPTION**

MGF7150C is a monolithic microwave integrated circuit for use in UHF band power amplifier.

**FEATURES**

- Low voltage operation  
Vd=4.7V
- High output power  
Po=33dBm(min.)@1710 to 1785MHz
- High efficiency  
Id=940mA(typ.)@Po=33dBm
- Small size  
5.4×6×0.6mm
- Surface mount package
- 2 stage amplifier
- External matching circuit is required

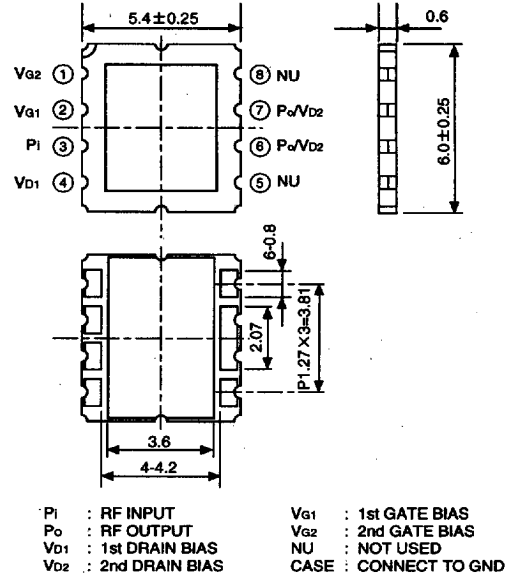
**APPLICATION**

1.7GHz band handheld phone

**QUALITY GRADE**

- GG

**OUTLINE DRAWING**



The device is assembled in the ceramic package covered with resin.

**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Ratings	Unit
Vd1,Vd2	Drain voltage	9	V
Vg1,Vg2	Gate voltage	-5	V
Pi	Input power	15	dBm
Tc(op)	Operating case temperature	-30 to +85	°C
Tstg	Storage temperature	-30 to +100	°C

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

Symbol	Parameter	Test conditions (Note1)	Limits			Unit
			Min	Typ	Max	
f	Frequency		1710	—	1785	MHz
Po	Output power	Vd1 =Vd2=4.7V,Pi=10dBm	33	—	—	dBm
Idt	Total drain current	Vd1 <4.7V,Vd2 =4.7V Pi=10dBm, Po=33dBm(Vd1 cont.)	—	940	—	mA
Ig	Gate current		—	—	4	mA
2sp	2nd harmonics		—	—	-30	dBc
ρ1	Input VSWR		—	—	3	—

Note1 : Electrical characteristics are changed by the external matching circuit. Limits are guaranteed by using MITSUBISHI test fixture.

