# **Preliminary**

BA01202

GaAs HBT HYBRID IC

Specifications are subject to change without notice.

#### **DESCRIPTION**

The BA01202 is GaAs RF amplifier designed for N-CDMA PCS hand-held phone.

### **FEATURES**

Low voltage Vc=3.2V High power Po=28dBm

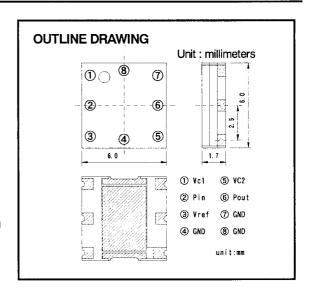
High gain Gp=25dB @Po=28dBm

2stage amplifier

Internal input and output matching

#### **APPLICATION**

N-CDMA (Spreading chip rate is 1.2288Mcps, modulation is OQPSK) hand set.



## **ABSOLUTE MAXIMUM RATINGS** (Ta=25°C)

Symbol	Parameter	Condition	Ratings*	Unit
Vcc	Supply voltage of HPA		6	V
Pin	Input power	ZG=ZL=50Ω	5	dBm
Tc(op)	Operating case temp.		-30 ~ +95	°C
Tstg	Storage temp.		-30 ~ +125	°C

\*Note: Each maximum rating is guaranteed independently.

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

Symbol	Parameter	Test conditions**	Limits			
			MIN	TYP	MAX	Unit
f	Frequency		1850		1910	MHz
lq	Quiescent current	No RF input		60		mA
lct	Total current	Po=28dBm		520		mA
PAE	Power added efficiency	Vc1=Vc2=3.2V		38		%
Gain	Gain	Vref=3.0V		25		dB
ρin	Return loss	ZS=ZL=50Ω			-6	dB
ACPR	Adjacent channel power at 1.25MHz			-33	-29	dBc
						dBc
2sp	2nd harmonics				-30	dBc
3sp	3rd harmonics				-30	dBc
Rxnoise	Noise in RX band			-140	-138	dBm/Hz

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