

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.

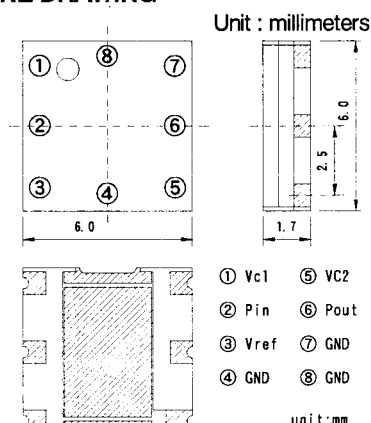
FEATURES

Low voltage $V_c=3.2V$
 High power $P_o=28dBm$
 High gain $G_p=25dB$ @ $P_o=28dBm$
 2stage amplifier
 Internal input and output matching

APPLICATION

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

OUTLINE DRAWING



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			Unit
			MIN	TYP	MAX	
f	Frequency		1850		1910	MHz
Iq	Quiescent current	No RF input	--	60	--	mA
Ict	Total current	Po=28dBm	--	520	--	mA
PAE	Power added efficiency	Vc1=Vc2=3.2V	--	38	--	%
Gain	Gain	Vref=3.0V	--	25	--	dB
pin	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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