

Preliminary

Specifications are subject to change without notice.

BA01202

GaAs HBT HYBRID IC

DESCRIPTION

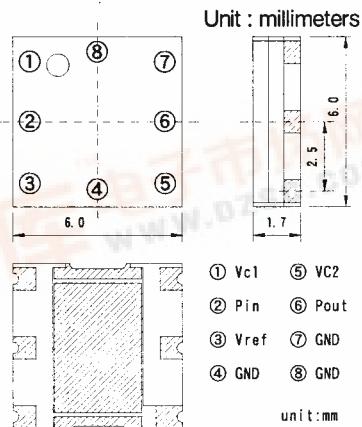
The BA01202 is GaAs RF amplifier designed for N-CDMA PCS hand-held phone.

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	$Z_G=Z_L=50\Omega$	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		--	520	--	mA
PAE	Power added efficiency	$P_o=28dBm$	--	38	--	%
Gain	Gain	$V_{c1}=V_{c2}=3.2V$	--	25	--	dB
pin	Return loss	$V_{ref}=3.0V$			-6	dB
ACPR	Adjacent channel power at 1.25MHz	$Z_S=Z_L=50\Omega$		-33	-29	dBc
2sp	2nd harmonics					dBc
3sp	3rd harmonics				-30	dBc
Rxnoise	Noise in RX band				-140	-138 dBm/Hz

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