

# Preliminary

**BA01202**

Specifications are subject to change without notice.

GaAs HBT HYBRID IC

**DESCRIPTION**

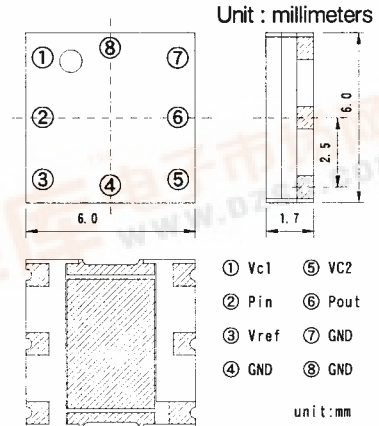
The BA01202 is GaAs RF amplifier designed for N-CDMA PCS hand-held phone.

**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** ( $T_a=25^\circ C$ )

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** ( $T_a=25^\circ C$ )

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	$P_o=28dBm$	--	520	--	mA
PAE	Power added efficiency	$V_{c1}=V_{c2}=3.2V$	--	38	--	%
Gain	Gain	$V_{ref}=3.0V$	--	25	--	dB
pin	Return loss	$Z_S=Z_L=50\Omega$			-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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