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DESCRIPTION

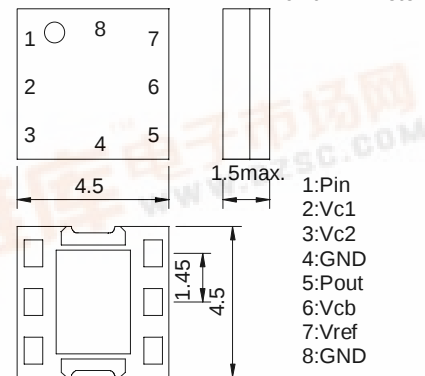
The BA01207 GaAs RF amplifier designed for J-cdmaOne hand-held phone.

FEATURES

- Low voltage $V_c = 3.5V$
 - High power $P_o = 27.5dBm$
 - High gain $G_p = 27.5dB @ P_o = 27.5dBm$
 - 2stage amplifier
 - Internal input* and output matching
- *Use DC block for input port

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	$Z_G = Z_L = 50\Omega$	7	dBm
Tc(op)	Operating case temp.		-20 ~ +85	$^\circ C$
Tstg	Storage temp.		-30 ~ +125	$^\circ C$

*Note : Each maximum rating is guaranteed independently .

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$, $Z_G = Z_L = 50\Omega$)

Symbol	Parameter	Test conditions	Limits			Unit
			MIN	TYP	MAX	
f	Frequency		887	-	925	MHz
Iq	Quiescent current	$V_c = 3.5V, V_{cb} = V_{ref} = 2.8V$ No Signal	-	55	70	mA
Ict ^{*1}	Total current	$P_o = 27.5dBm$ (IS-95B)	-	395	420	mA
Icb+Iref	Total current	$V_{c1} = V_{c2} = 3.5V$	-	5.3	10	mA
hadd	Power added efficiency	$V_{cb} = V_{ref} = 2.8V$	-	40	-	%
Gain	Power Gain		25	27.5	-	dB
ACP ^{*2}	Adjacent channel power at 900KHz		-	-50	-47	dBc
	Adjacent channel power at 1.98MHz		-	-60	-57	dBc
2sp	2nd harmonics		-	-30	-27	dBc
3sp	3rd harmonics		-	-45	-30	dBc
Rxnoise	Noise in RX band		-	-138	-135	dBm/Hz
Ict ^{*1}	Total current	$P_o = 15dBm$ (IS-95B)	-	107	122	mA
Icb+Iref	Total current	$V_{c1} = V_{c2} = 1.2V$	-	2.5	5.5	mA
Gain	Power Gain	$V_{cb} = V_{ref} = 2.8V$	21.5	24	-	dB
ACP ^{*2}	Adjacent channel power at 900KHz		-	-55	-47	dBc
	Adjacent channel power at 1.98MHz		-	-66	-58	dBc

*1: Ict=Ic1+Ic2, *2: ACP=ACP (30KHz band at 900/1980KHz)-Po(1.23MHz band)

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