

Preliminary

BA01241

GaAs HBT HYBRID IC

Specifications are subject to change without notice.

DESCRIPTION

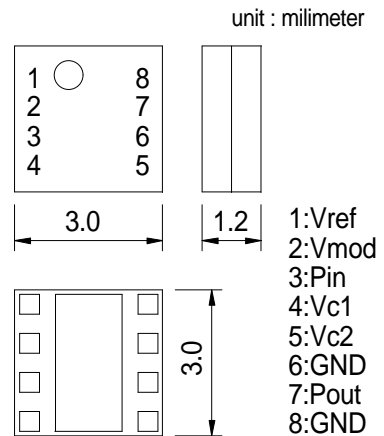
BA01241 is GaAs RF amplifier designed for CDMA handheld-phone.

FEATURES

High gain	Gp=28dB
Single supply voltage	Vcc=3.4V
CDMA-mode	
High power	Po=28.0dBm
High efficiency	Ict=465mA(40%)

Internal input and output matching
 Small size: 3.0x3.0x1.2mm³

Outline Drawing



APPLICATION

CDMA/AMPS 824-849MHz handset.

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	7	dBm
Tc(op)	Operating case temp.		-20 ~ +85	°C
Tstg	Storage temp.		-30 ~ +125	°C

*Note : Each maximum rating is guaranteed independently .

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Condition*	Limits			Unit
			MIN	TYP	MAX	
freq	Frequency(CDMA/AMPS)		824		849	MHz
Iq	Quiescent Current	No-RF input	--	55	--	mA
Ict	Total Corrector Current	CDMA-mode	--	465	--	mA
PAE	Power added efficiency	Po=28.0dBm		40		%
Gain	Gain	Vc1=Vc2=3.4V,	25	28		dB
pin	Return loss	Vref=2.85V			-6	dB
ACP	Adjacent channel power at ±885KHz	Vmode=0V		-52	--	dBc
	Adjacent channel power at ±1.98MHz			-62	--	dBc
2sp/3sp	2nd/3rd Harmonics		--	--	-30	dBc
Rxnoise	Noise in RX band			-136	--	dBm/Hz
Ict_low	Total current at low power	Po=16dBm,Vcc=3.4V		130	--	mA

*Z₀=Z_L=50(Ω), CDMA signal: modulated signal based on IS-95B STD, ACP: Adjacent channel @BW=30KHz from Primary channel @BW=1.23MHz

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