MITSUBISHI SEMICONDUCTOR

Preliminary

BA01232

HBT HYBRID IC

Specifications are subject to change without notice.

DESCRIPTION

The BA01232 is GaAs RF amplifier designed for W-CDMA hand-held phone.

FEATURES

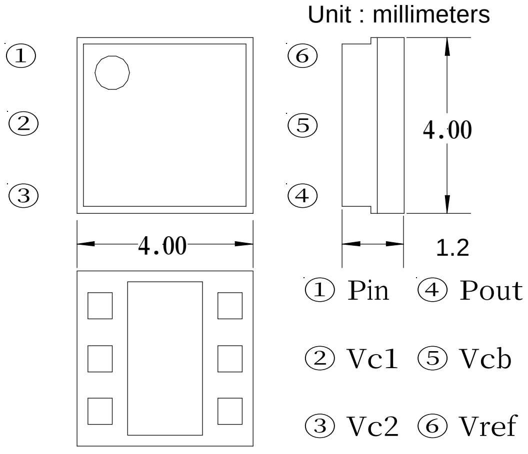
Low voltage	Vcc=3.5V	
High power	Po=26.5dBm	@1920~1980MHz
High gain	Gp=27.5dB	@Po=26.5dBm

2stage amplifier
Internal input and output matching
Small size package 4x4x1.2mm

APPLICATION

W-CDMA(UTRA/FDD) mobile transmitter
(UE Power Class 3).

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	7	dBm
Tc(op)	Operating case temp.		-20 ~ +85	°C
Tstg	Storage temp.		-30 ~ +95	°C

*Note : Each maximum rating is guaranteed independently .

ELECTRICAL CHARACTERISTICS(Ta=25°C)

Symbol	Parameter	Test conditions**	Limits			Unit
			MIN	TYP	MAX	
f	Frequency		1920		1980	MHz
Icqt	Idle current	No RF input		35		mA
Ict	Total current	Po=26.5dBm Vc1=Vc2=3.5V Vref=2.9V Vcb=2.9V		252		mA
PAE	Power added efficiency			50		%
Pin	Input Power			-1.0		dBm
ρin	Return loss				-6	dB
ACLR	Adjacent channel leakage power at 5MHz			-41	-38	dBc
	Adjacent channel leakage power at 10MHz			-54	-48	dBc
2Sp/3Sp	2nd/3rd harmonics				-30	dBc
RX noise	RX band noise			-140		dBm/Hz

**NOTE : ZG=ZL=50Ω
3.84Mcps spreading, HPSK.

MITSUBISHI ELECTRIC CORP.

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