Preliminary

FA01227

Specifications are subject to change without notice.

GaAs FET HYBRID IC

DESCRIPTION

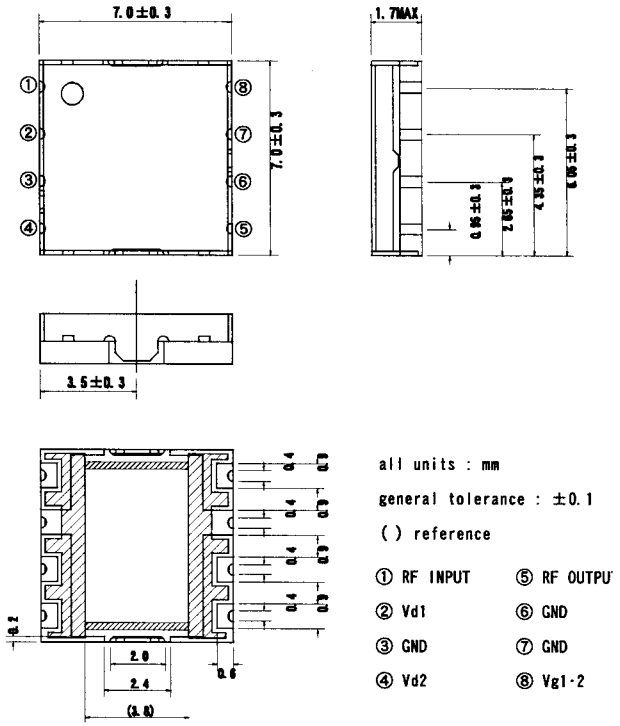
FA01227 is RF Hybrid IC designed for 0.8GHz band small size handheld radio.

FEATURES

Low voltage	3.5V
High gain	24.7dB
High efficiency	58%
High power	29.7dBm

APPLICATION

PDC800



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Condition	Tc	Ratings	Unit
VD	Drain voltage	Po≤29.7dBm	25°C	4.5	V
Pin	Input Power	ZG=ZL=50Ω	25°C	15	dBm
Tc(op)	Operation case temp.	--	--	-20 ~ +85	°C
Tstg	Storage temp.	--	--	-30 ~ +90	°C

Note: Each maximum ratings is guaranteed independently and duty=1/3 operation. T=20 msec

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Condition	Limits			Unit
			MIN	TYP	MAX	
f	Frequency	--	893	--	958	MHz
Pin	Input Power	Po=29.7dBm	--	5	7.5	dBm
Idt	Total Drain Current	VD1=VD2=3.5V	--	475	494	mA
ρin	Return Loss	VG1,2=-2.30V	--	--	-6	dB
ACP50	±50kHz adjacent channel power	ZG=ZL=50Ω	--	--	-47	dBc
ACP100	±100kHz adjacent channel power	(π/4 DQPSK)	--	--	-62	dBc
2fo	2nd Harmonics	ditto	--	-40	-35	dBc
3fo	3rd Harmonics	(CW)	--	-45	-40	dBc

Mitsubishi Electric Corporation puts the maximum effort into making semiconductor products better and reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (1) placement of substitutive, auxiliary, circuits, (2) use of non-flammable material or (3) prevention against malfunction or mishap.