

DESCRIPTION

The MGF1001P is a MMIC designed for use in dual frequency oscillator.

FEATURES

- Phase Noise : -90.0dBc/Hz (typ.)
- Oscillation Output power : 5.00dBm (typ)

APPLICATION

Dual Frequency Oscillator

QUALITY GRADE

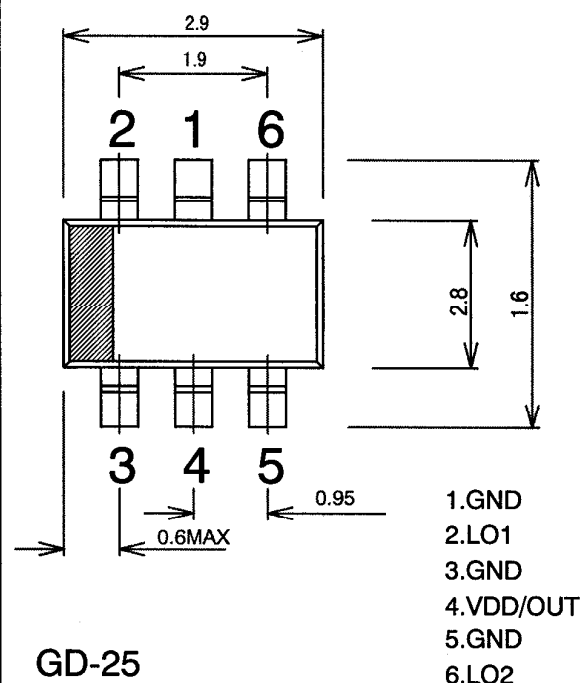
- General Grade (GG)

RECOMMENDED BIAS CONDITIONS

VDD= 4V
 LO1= 0V, -1.5V
 LO2= -1.5V, 0V

Outline Drawing

Unit : mm

**ABSOLUTE MAXIMUM RATINGS** (Ta=25°C)

Symbol	Parameter	Ratings	Unit
VDD	DC Bias Voltage	T.B.D.	V
VLO	DC Switch Voltage	T.B.D.	V
Tstg	Storage Temperature	T.B.D.	°C
Top	Operating Temperature	T.B.D.	°C

Keep safety first in your circuit designs!

MITSUBISHI ELECTRIC Corporation puts the maximum effort into making semiconductor products better and more 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 designed, with appropriate measure such as (i) placement of substitutive, auxiliary circuits, (ii) use of non-flammable material or (iii) prevention against any malfunction mishap.

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test Conditions	Limits			Unit
			Min.	Typ.	Max.	
IDD	DC Bias Current	VDD=4V	--	25	--	mA
fosc1	Oscillation Frequency Range	VLO1=0V	9.75	--	10.6	GHz
POsc1	Oscillation Output Power	VLO2=-1.5V	--	5	--	dBm
Φ1	Phase Noise	10KHz offset	--	-90	--	dBc/Hz
IDD	DC Bias Current	VDD=4V	--	25	--	mA
fosc2	Oscillation Frequency Range	VLO1=-1.5V	9.75	--	10.6	GHz
POsc2	Oscillation Output Power	VLO2=0V	--	5	--	dBm
Φ2	Phase Noise	10KHz offset	--	-90	--	dBc/Hz

Jan./1999

MITSUBISHI SEMICONDUCTOR <GaAs FET>

Preliminary

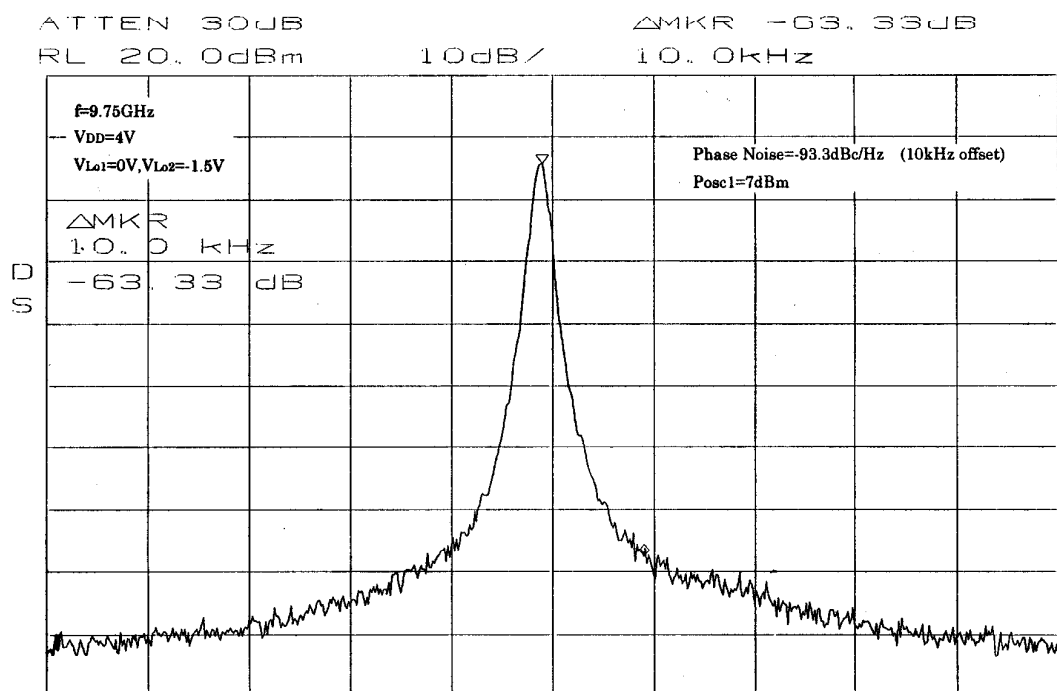
MGF1001P

Dual Oscillator MMIC

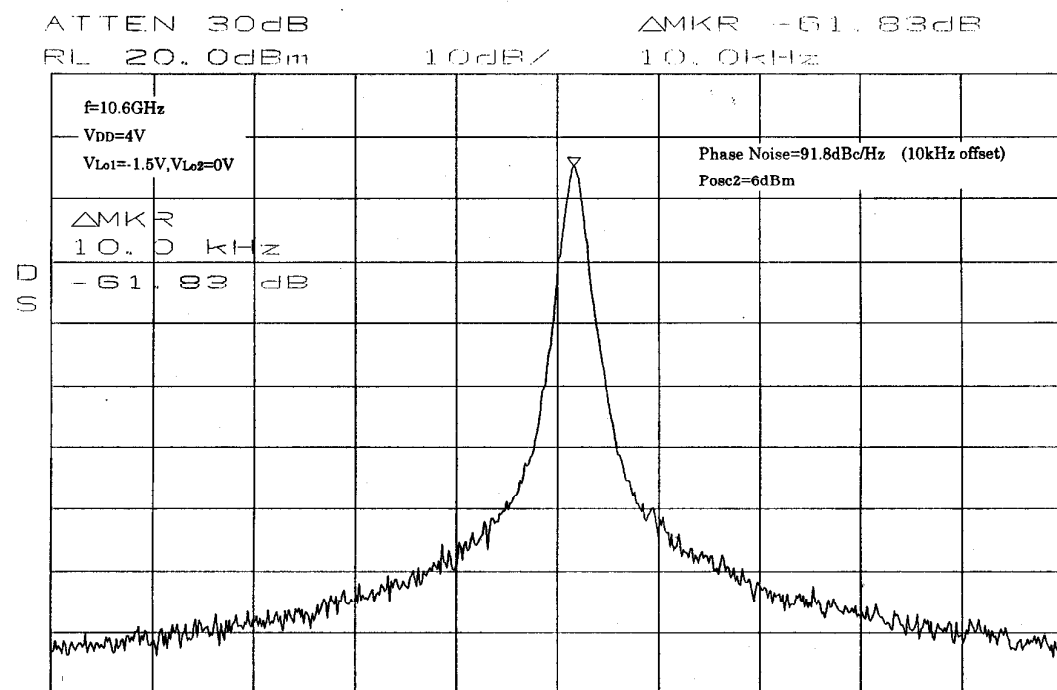
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Evaluation Result (Ta=25°C)



CENTER 9.7506482GHz SPAN 100.0kHz
RBW 1.0kHz *VBW 30Hz SWP 8.40sec



CENTER 10.6009452GHz SPAN 100.0kHz
RBW 1.0kHz *VBW 30Hz SWP 8.40sec

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