FMC2122C6-03 Ku, K-Band Power GaAs Modules

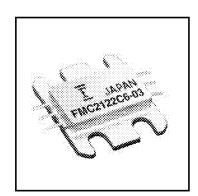
FEATURES

- High Output Power: P_{1dB} = 18dBm(Typ.)
- High Gain: G_{1dB} = 13dB(Typ.)
- Low In/Out VSWR
- Broad Band: 21.2 ~ 22.4GHz
- Impedance Matched Zin/Zout = 50Ω
- Hermetically Sealed Package (12 X 15 X 3.5mm)

DESCRIPTION

The FMC2122C6-03 is a module that contains a two-stage amplifier, internally matched, for standard communications in the 21.2 to 22.4GHz frequency range. This product is well suited for point-to-point radio applications as it offers high power, high gain, and low VSWR.

Fujitsu's stringent Quality Assurance Program assures the highest reliability and consistent performance.



Parameter	Symbol	Rating	Unit V	
DC Input Voltage	V _{DD}	10		
DC Input Voltage	VGG	-7	V	
Input Power	Pin	8.5	dBm	
Storage Temperature	⊤ _{stg}	-55 to +125	°C	
Operating Case Temperatur	e T _{op}	-55 to +85	°C	

ABSOLUTE MAXIMUM RATINGS (Ambient Temperature Ta = 25°C)

Fujitsu recommends the following conditions for the reliable operation of GaAs modules:

1. The drain operating voltage (V_{DD}) should not exceed 8 volts.

2. The gate operating voltage (V_{GG}) should not exceed -5 volts.

ELECTRICAL CHARACTERISTICS (Case Temperature Tc = 25°C)

ltem	Symbol	Test Conditions	Min.	Limit Typ.	Max.	Unit
Frequency Range	f		21.2 ~ 22.4		GHz	
Output Power at 1dB G.C.P.	P1dB	V _{DD} =8V V _{GG} = -5V f = 21.2 ~ 22.4 GHz	16.5	18.0	-	dBm
Power Gain at 1 dB G.C.P.	G _{1dB}		11.0	13.0	16.0	dB
Gain Flatness	ΔG	V _{DD} =8V VGG = -5V Pin = -5dBm f = 21.2 ~ 22.4GHz	-	1.0	2.0	dB
Input VSWR	VSWRi		-	2.5:1	3.0:1	-
Output VSWR	VSWRo		-	3.0:1	4.0:1	-
DC Input Current	۱ _D	V _{DD} =8V V _{GG} =-5V	-	70	100	mA
DC Input Current	IG		-	10	15	mA

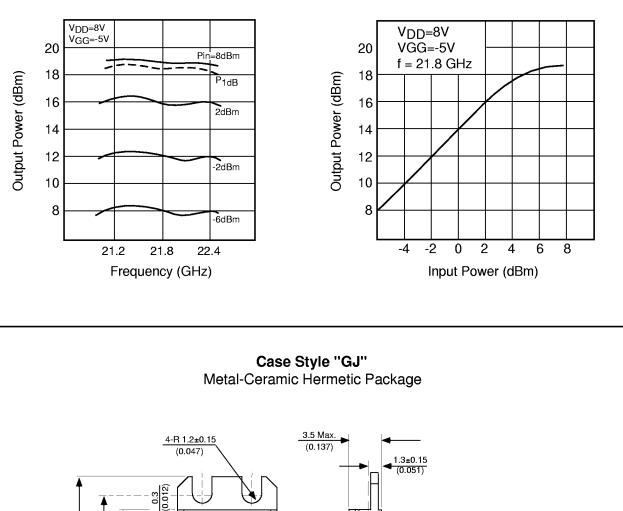
CASE STYLE: GJ

G.C.P.: Gain Compression Point

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1

0.9 (0.035) 1. V_{DD} 2. RF_{in}

3. V_{GG} 4. V_{GG}

5. RF out 6. V_{DD} 7. GND (Body) Unit: mm (inches)

6-0.08

OUTPUT POWER vs. FREQUENCY

OUTPUT POWER vs. INPUT POWER

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15

6

6±0.15 (0.236)

12±0.15

(0.472)

15 (0.591)

ţ.

0.276

INDEX

1 Min. (0.039)