NJM2270

NJM2270 is an RF amplifier operating at frequency from 0.7GHz to 1.8GHz. It is suitable for IF amplifiers, BS convertors, etc.

■ Package Outline

■ Features

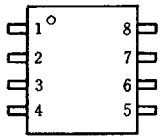
- Wide frequency renge — BW=0.7~1.8GHz
- High power gain — G_P=18dB at Vcc=+10V, f=1.0GHz
- 50Ω impedance matched (No external matching)
- Low supply current — 21mA(TYP.)
- High speed bipolar technology

■ Absolute Maximam Ratings (Ta=25°C)

Supply Voltage	V^+	12V
Power Dissipation	P_D	300mW
Operating Temperature	T_{opr}	−20~+75℃
Storage Temperature	T_{stg}	−40~+125℃

■ Connection Diagram

E-Type
(Top View)



Pin Function

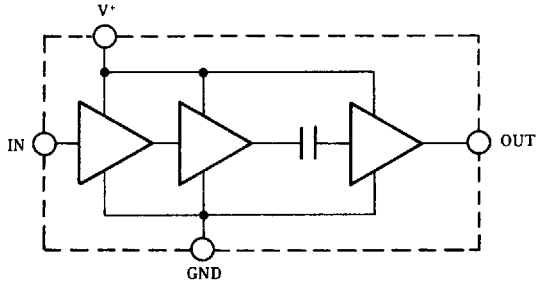
1.RF IN	5.OUT
2.GND	6.GND
3.GND	7.GND
4.GND	8.V^+

2,3,4,6 and 7 pin must be connected to GND.

■ Electrical Characteristics (V^+=10V, T_a =25±2℃)

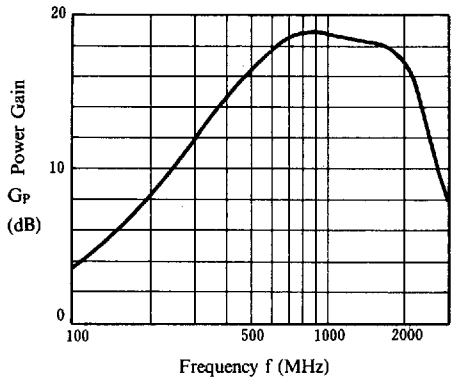
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Supply Current	Icc	No Signal	15	21	27	mA
Power Gain	G_P	f=1.0GHz	16	18	20	dB
Noise Figure	NF	f=1.6GHz	—	5.5	7.0	dB
Bandwidth(Low)	BWlow	−3dB Point from Gp at f=1.0GHz	—	—	0.7	GHz
Bandwidth(High)	BWhigh		1.8	—	—	GHz
Isolation	ISL	f=1.8GHz	25	30	—	dB
Input Return Loss	RLin	f=1.0GHz	7	10	—	dB
Output Return Loss	RLout	f=1.0GHz	4	7	—	dB
Max Output Power	Po	f=1.8GHz	-5.5	-2.0	—	dBm

■ Block Diagram

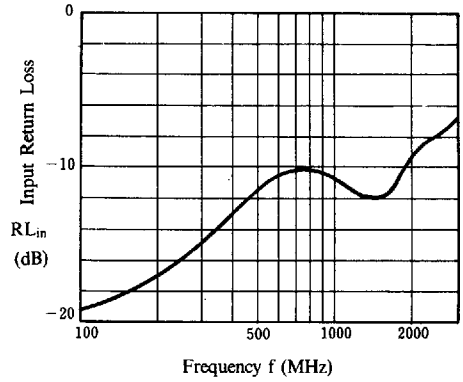


■ Typical Characteristics

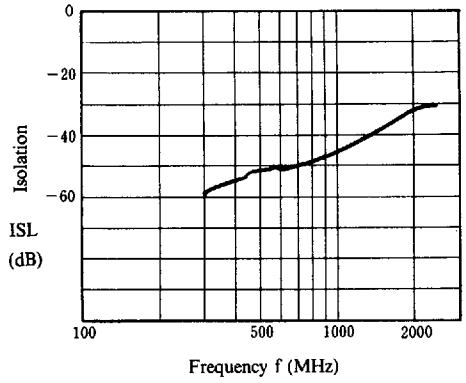
Power Gain vs. Frequency



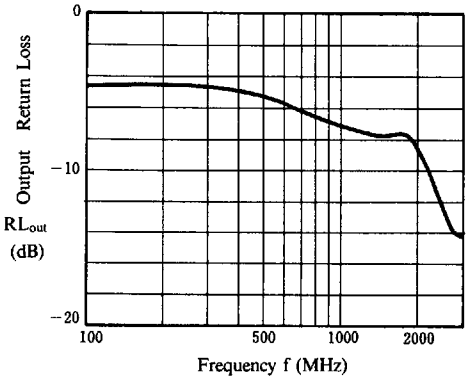
Input Return Loss vs. Frequency



Isolation vs. Frequency

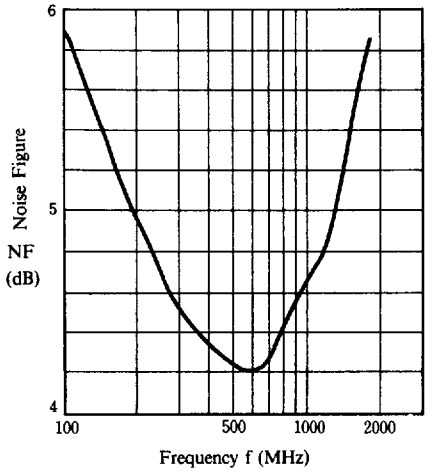


Output Return Loss vs. Frequency



Noise Figure vs. Frequency

(V^+=10V)



■ Typical Application