

# GN1021

## GaAs N Channel MES Type IC

For SHF band IF amplification and UHF band general-purpose amplification

### ■ Features

- Bias resistor built-in
- Low noise
- High gain

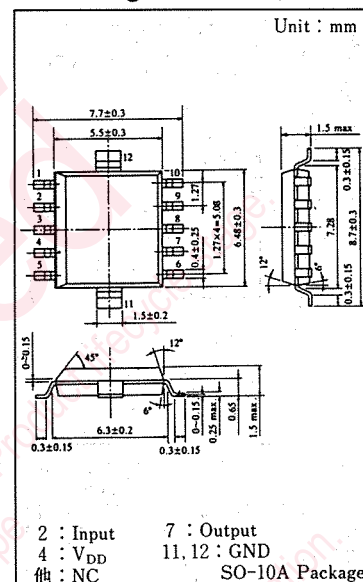
### ■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Value	Unit
Power Supply Voltage	V <sub>DD</sub>	15	V
Circuit Current	I <sub>DD</sub>	80	mA
Power Dissipation	P <sub>D</sub>	500	mW
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C

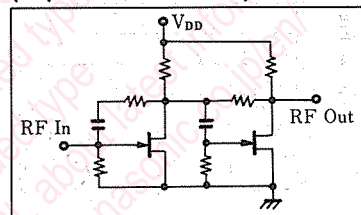
### ■ Electrical Characteristics (Ta=25°C)

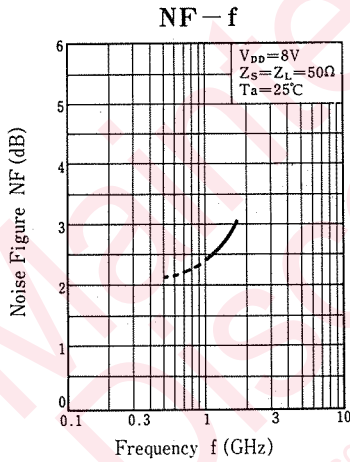
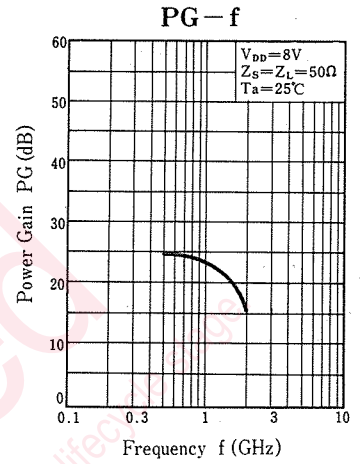
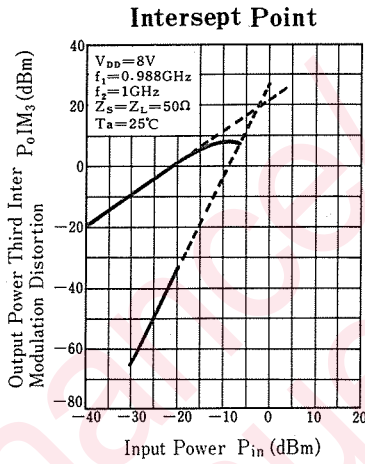
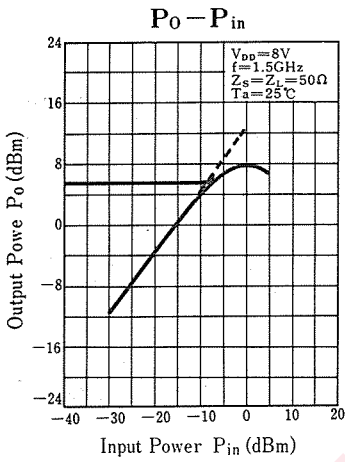
Item	Symbol	Condition	min.	typ.	max.	Unit
Circuit Current	I <sub>DD</sub>	V <sub>DD</sub> =8V, Z <sub>S</sub> =Z <sub>L</sub> =50Ω	20	40	70	mA
Power Gain	PG	V <sub>DD</sub> =8V, f=1.5GHz, Z <sub>S</sub> =Z <sub>L</sub> =50Ω	16	19	22	dB
Noise Figure	NF	V <sub>DD</sub> =8V, f=1.5GHz, Z <sub>S</sub> =Z <sub>L</sub> =50Ω		3	4	dB
Isolation	I <sub>SO</sub>	V <sub>DD</sub> =8V, f=1.5GHz, Z <sub>S</sub> =Z <sub>L</sub> =50Ω	24	35		dB
I <sub>dB</sub> Compression Output Level	P <sub>O</sub>	V <sub>DD</sub> =8V, f=1.5GHz, Z <sub>S</sub> =Z <sub>L</sub> =50Ω		10		dBm
Input V <sub>SWR</sub>	V <sub>SWRI</sub>	V <sub>DD</sub> =8V, f=0.9~1.5GHz, Z <sub>S</sub> =Z <sub>L</sub> =50Ω		2.5	3.5	
Output V <sub>SWR</sub>	V <sub>SWRO</sub>	V <sub>DD</sub> =8V, f=0.9~1.5GHz, Z <sub>S</sub> =Z <sub>L</sub> =50Ω		2	3	
Tertiary Distortion	IM <sub>3</sub>	V <sub>DD</sub> =8V, Z <sub>S</sub> =Z <sub>L</sub> =50Ω, f <sub>1</sub> =0.988GHz, f <sub>2</sub> =1GHz Intercept point		18		dBm

### ■ Package Dimensions



### (Equivalent Circuit)





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