

## Wideband Microwave Amplifier 50 MHz-3 GHz

**ZHM 50-3G**

Power Output 120 mW

### Features

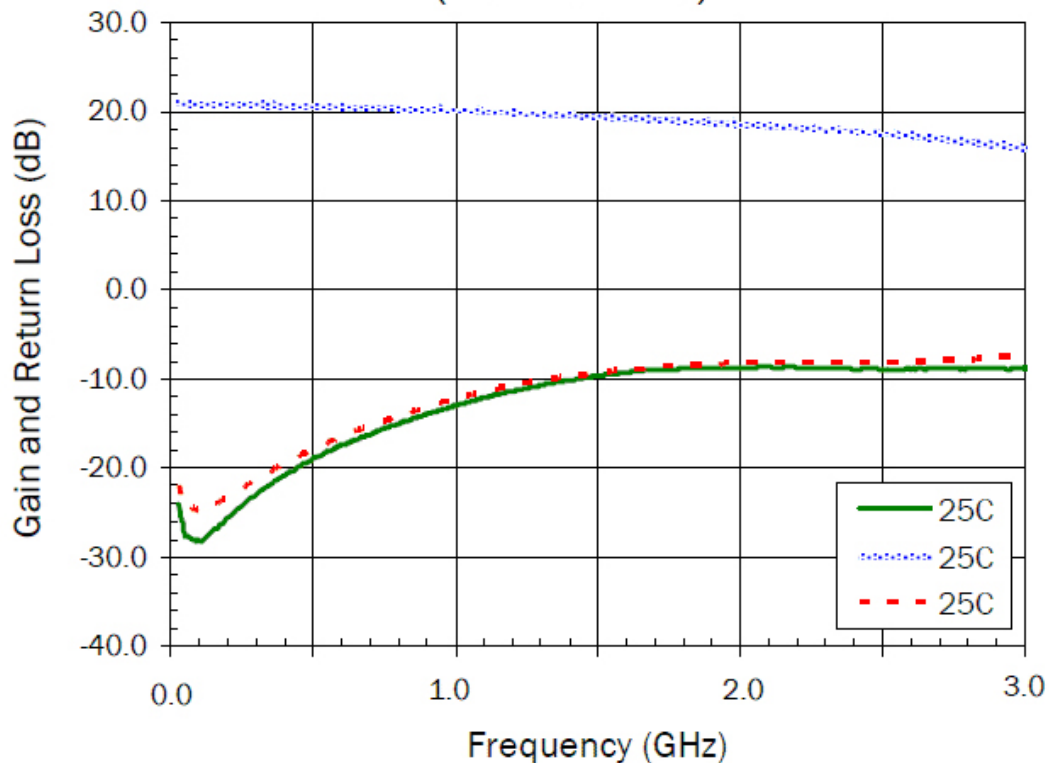
- Wireless Data, Satellite Terminals

### Applications

- PA Driver Amplifier
- Cellular, PCS, GSM, UMTS
- Wideband Instrumentation
- Wireless Data, Satellite Terminals



Gain and Return Loss versus Frequency  
(with BiasTees)



Parameter				Unit	Condition
	Min.	Typ.	Max.		
Small Signal Gain	19.0	20.5	22.0	dB	850MHz
	18.3	19.0	21.5	dB	1950MHz
	14.5	15.5	17.5	dB	6000MHz
Output Power at 1dB Compression		20.5		dBm	850MHz
	19.0	20.0		dBm	1950MHz
Third Order Intercept Point		38.5		dBm	850MHz
	33.0	35.0		dBm	1950MHz
Bandwidth		3000		MHz	Min. 10dB return loss (typ.)
Input Return Loss	10.0	13.0		dB	1950MHz
Output Return Loss	10.0	14.0		dB	1950MHz
Reverse Isolation		23.3		dB	1950MHz
Noise Figure		3.9	4.9	dB	1950MHz
Device Operating Voltage	4.75	5.0	5.25	V	
Device Operating Current	60.0	75.0	92.0	mA	
Thermal Resistance		69.9		°C/W	junction - lead

### Typical Performance at Key Operating Frequencies (0.5GHz to 3.5GHz Application Circuit)

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Small Signal Gain		21.1		dB	50MHz
		20.9		dB	100MHz
		20.8		dB	200MHz
		20.8		dB	500MHz
		20.8		dB	850MHz
		20.1		dB	1950MHz
		19.8		dB	2500MHz
		18.7		dB	3500MHz
Output Third Order Intercept Point		17.8		dB	4000MHz
		36		dBm	50MHz
		37.8		dBm	100MHz
		37.5		dBm	200MHz
		38.6		dBm	500MHz
		39.2		dBm	850MHz
		34.9		dBm	1950MHz
		32.8		dBm	2500MHz
	29.4		dBm	3000MHz	

		26.8		dBm	4000MHz
Output Power at 1dB Compression		19.4		dBm	50MHz
		19.7		dBm	100MHz
		20		dBm	200MHz
		20.5		dBm	500MHz
		20.4		dBm	850MHz
		20.4		dBm	1950MHz
		19.4		dBm	2500MHz
		16.9		dBm	3000MHz