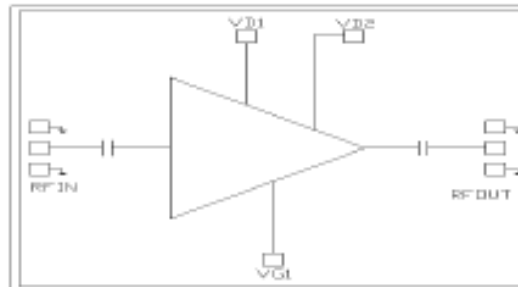


Features

- Frequency: 2-6GHz
- Small Signal Gain: 27dB
- P1dB: 20.5dBm
- Psat: 23dBm
- Power Supply: +7V/220mA
- Input/Output: 50Ω
- Die Size: 2.7 x 1.5 x 0.1 mm

Functional Block Diagram

Typical Applications

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

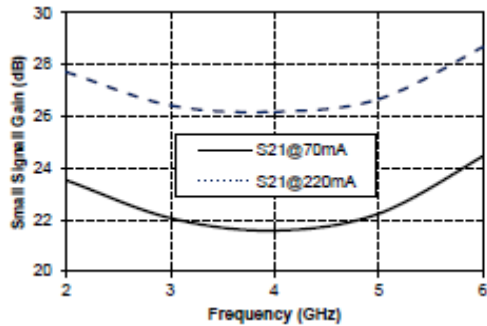
Electrical Specifications

TA = +25°C, Vd = +7V

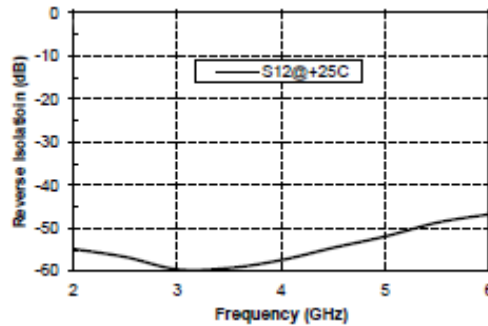
Parameters	Min.	Typ.	Max.	Units
Frequency	2-6			GHz
Small Signal Gain	26.5	27	28.5	dB
Gain Flatness		±1.0		dB
Output 1dB Compression (P1dB)	20	20.5	21	dBm
Saturated Output Power (Psat)	22.5	23	23.5	dBm
Input Return Loss		13		dB
Output Return Loss		7		dB
Static Current		220		mA
* Adjust VG (-2V-0V) to obtain device current of 220mA (Approximately -0.5V); after changing the current to 70mA, VG is expected to be -0.85V.				



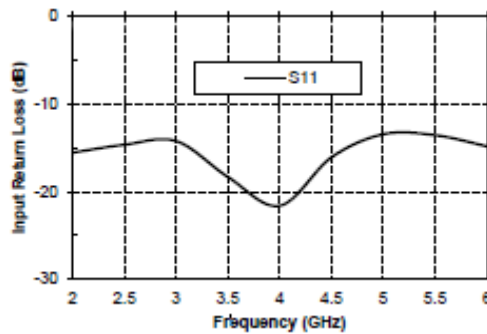
Gain vs. Frequency



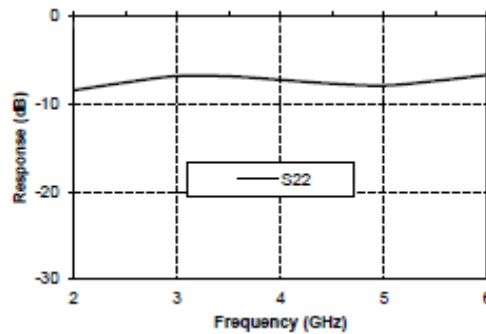
Reverse Isolation vs. Frequency



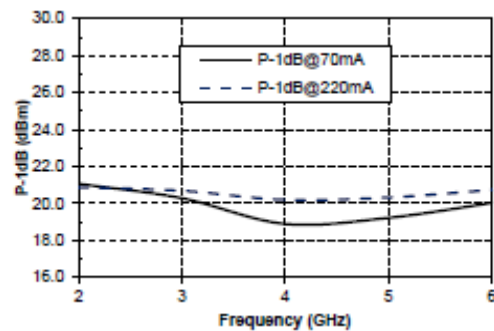
Input Return Loss vs. Frequency



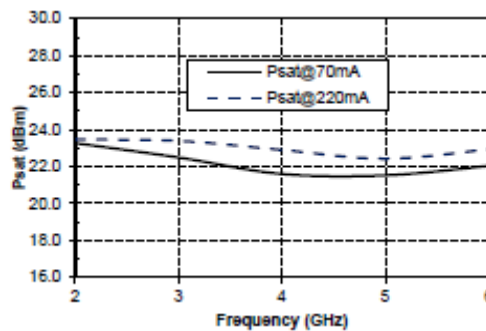
Output Return Loss vs. Frequency



P1dB vs. Frequency

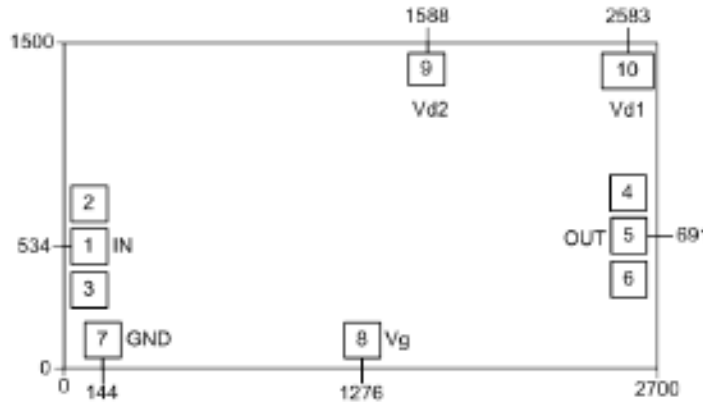


Psat vs. Frequency





Outline Drawing:
All Dimensions in μm

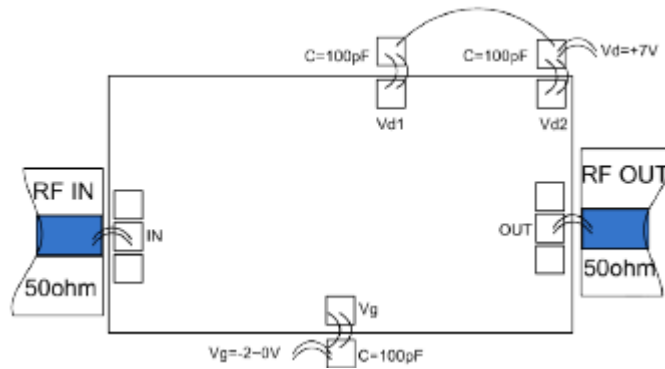


Pad Description

Pad	Function	Description	Equivalent Circuit
1	RF IN	RF signal input terminal; no blocking capacitor required.	
5	RF OUT	RF signal output terminal; no blocking capacitor required.	
8	Vd1	Amplifier drain bias; external 100pF bypass capacitor required.	
9	Vd2	Amplifier drain bias; external 100pF bypass capacitor required.	
11	Vg	Amplifier gate bias; external 100pF bypass capacitor required.	
2, 3, 4, 6, 10, 12	GND	Ground point for probe test.	
Die bottom	GND	Die bottom must be connected to RF/DC ground.	



Assembly Drawing



Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm^2
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

Maximum Ratings:

1. Maximum drain voltage: +9V
2. Maximum gate bias: -3V
3. Maximum input power: +15dBm
4. Operating temperature: -55°C to +85°C
5. Storage temperature: -65°C to +150°C