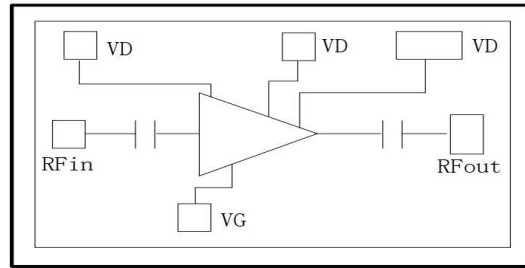


### Performance

- Frequency: 2~18GHz
- Typical Small Signal Gain: 20dB
- Typical Output Power: 24dBm@5V
- Typical PAE: 18%
- Bias: 5V, -0.6V
- Technical Type: 0.25um GaAs PHEMT
- Size: 3.2\*1.9mm\*0.08mm

### Function Schematic

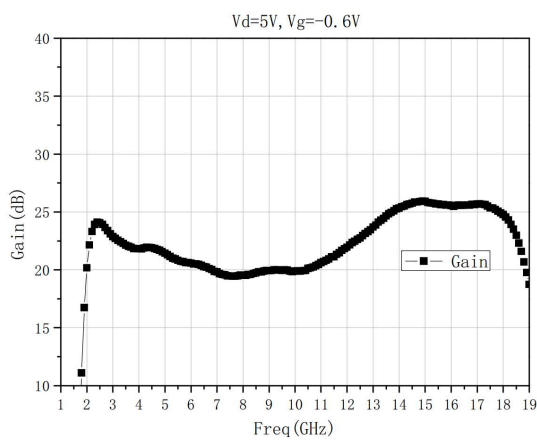


### Electrical Specifications (Vd=5V, Vg=-0.6V, Freq=2~18GHz)

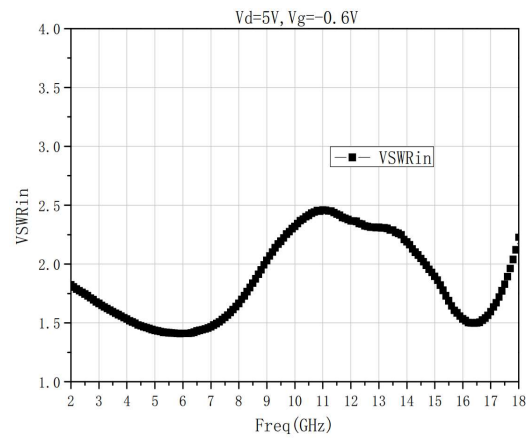
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	20	-	dB
Gp	Power Gain	-	14	-	dB
Pout	Saturated Power	-	24	-	dBm
PAE	Power Added Efficiency	-	18	-	%

### Test Curves

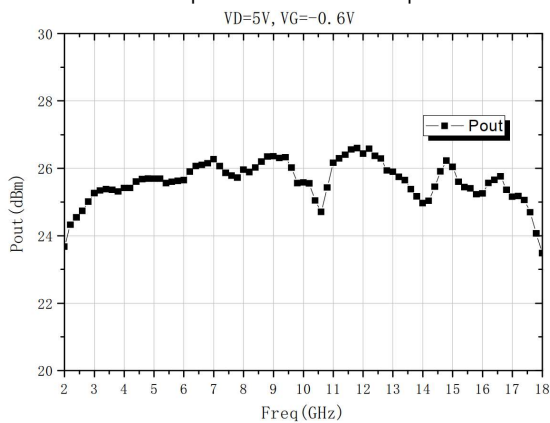
Gain vs. Freq



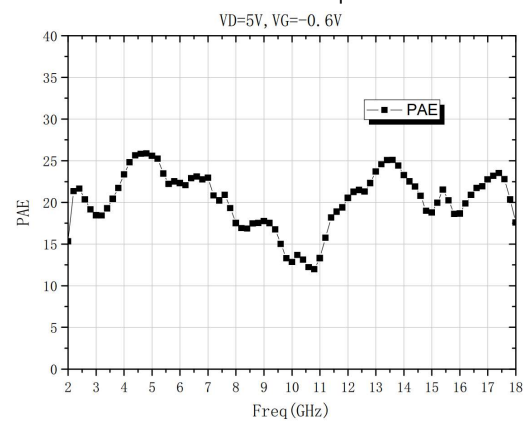
Input VSWR vs. Freq



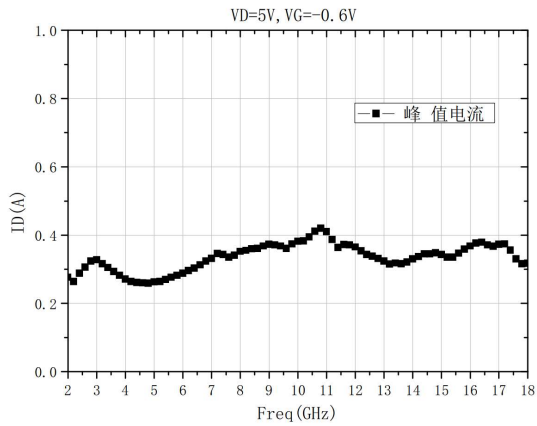
Output Power vs. Freq



PAE vs. Freq



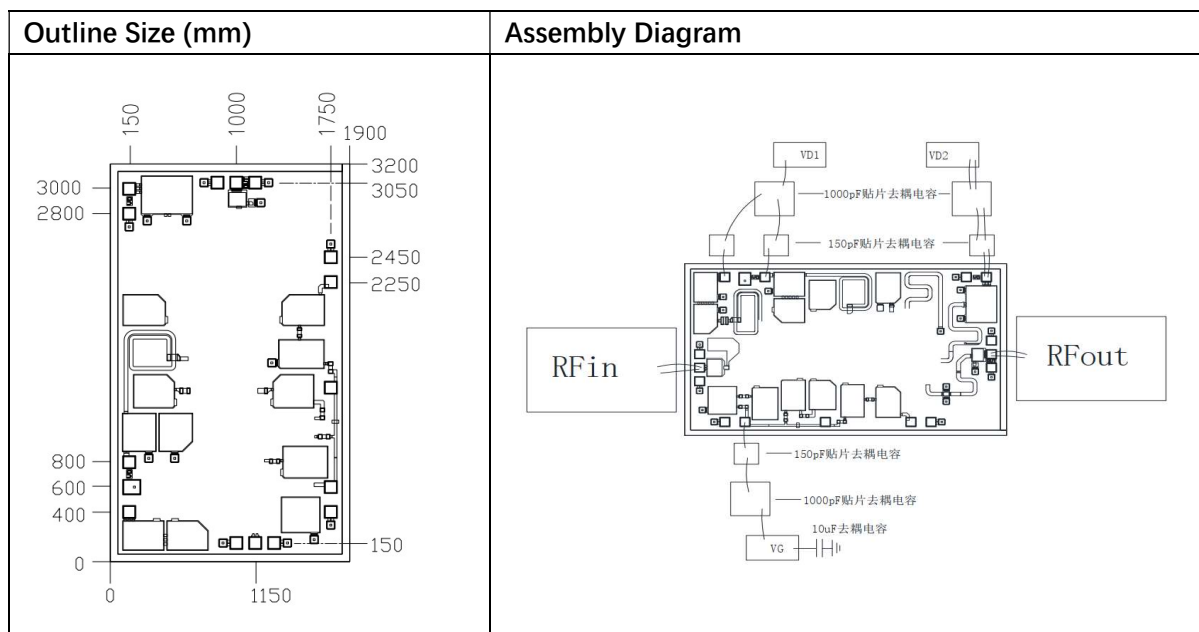
Id vs. Freq




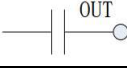
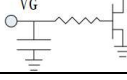
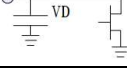
**Absolute Max Ratings (TA=25°C)**

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	9V	
Id	Drain Current	1A	
Vg	Gate Voltage	-0.4V	
Ig	Gate Current	50mA	
Pd	DC Power Consumption	8W	
Pin	Input Power	16dBm	
Tch	Channel Temperature	175°C	
Tm	Mounting Temperature	310°C	30 sec, N2 Protection
Tstg	Storage Temperature	-65~150°C	

Exceeding any one or combination of these limits may cause permanent damage.



### Pads Definition

Number	Description	Equivalent Circuits
RFin	RF input, connect to 50 $\Omega$ system, no block capacitor needed	
RFout	RF output, connect to 50 $\Omega$ system, no block capacitor needed	
VG	Amplifier grid bias, external 150pF, 1000pF capacitors needed	
VD	Amplifier drain bias, external 150pF, 1000pF capacitors needed	
GND	Bottom must be well connected to RF and DC grounded	