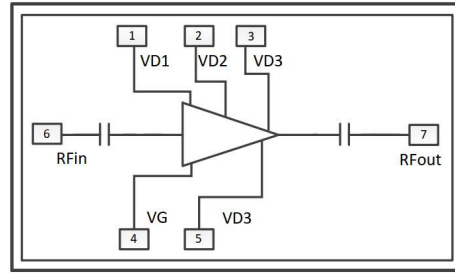


### Performance

- Frequency: 8.5~10.5GHz
- Linear Gain: 30dB
- Saturation Output Power: 34dBm
- Power Added Efficiency: 48%
- Technology: 0.35um PHEMT
- Bias Condition: 8V, -0.6V
- Size: 3.0\*1.8mm\*0.08mm

### Function Diagram

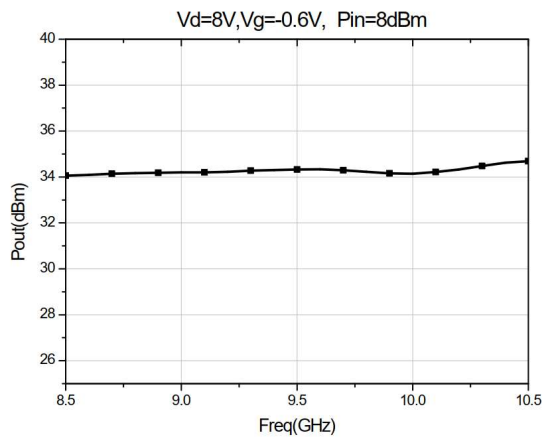


### Electrical Specifications (Vd=8V, Vg=-0.6V, Freq=8.5~10.5GHz)

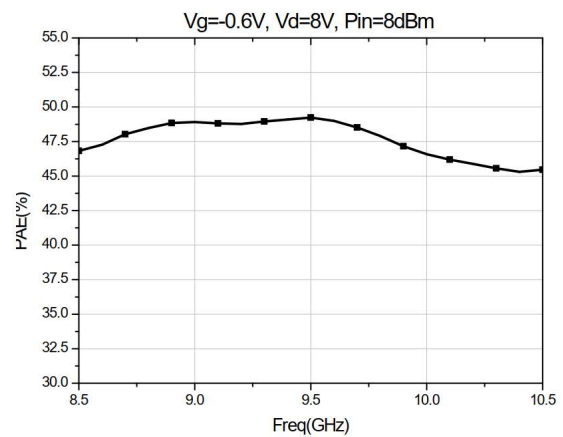
Symbol	Parameter	Min	Typical	Max	Unit
G	Linear Gain	-	30	-	dB
GP	Power Gain	-	26	-	dB
Pout	Saturated Power	-	34	-	dBm
PAE	Power Added Efficiency	45	48	-	%

### Test Curves

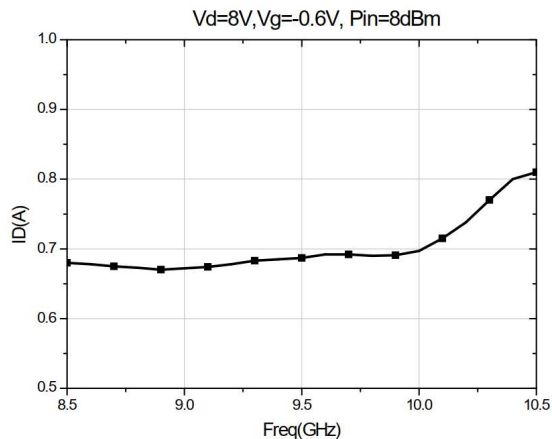
Saturation Output Power vs. Freq



PAE vs. Freq



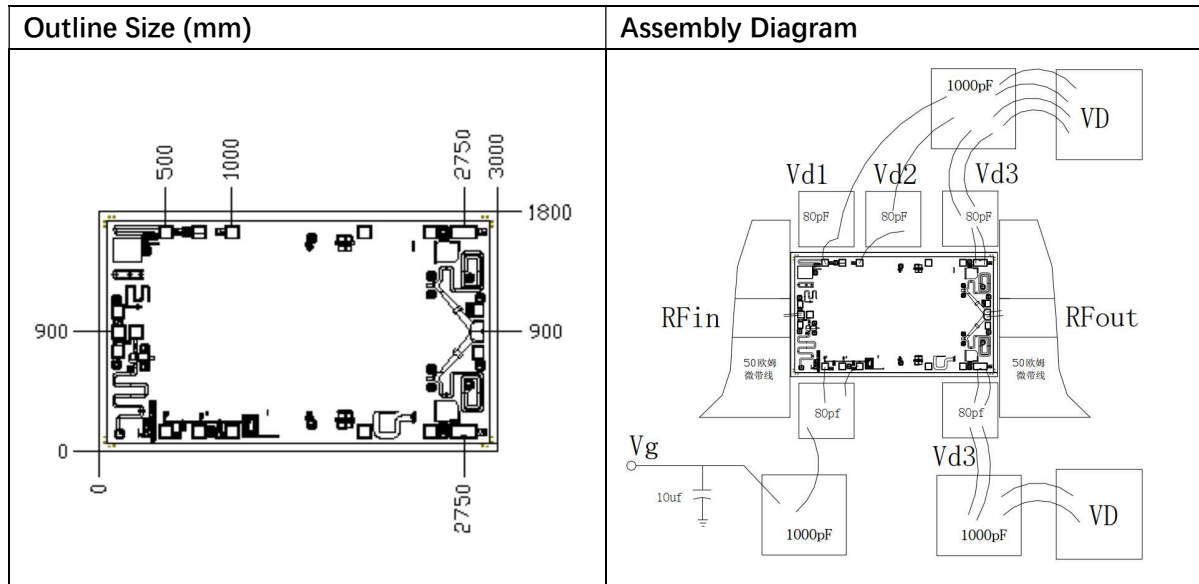
Drain Current vs. Freq




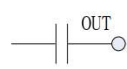
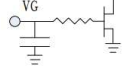
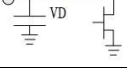
**Absolute Max Ratings (TA=25°C)**

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	9V	
Id	Drain Current	1.8A	
Vg	Gate Voltage	-2V	
Ig	Gate Current	100mA	
Pd	DC Power Consumption	15W	
Pin	Input Power	18dBm	
Tch	Channel Temperature	175°C	
Tm	Mounting Temperature	310°C	30s, 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 Circuit
RFin	RF signal input, connect to 50 Ohm system, DC block capacitor is not needed.	
RfOut	RF signal output, connect to 50 Ohm system, DC block capacitor is not needed.	
VG	Amplifier grid bias, external 1000pF capacitor is needed.	
VD1, VD2, VD3	Amplifier drain bias, external 100pF capacitor is needed.	
GND	Bottom has to be well connected with RF and DC.	