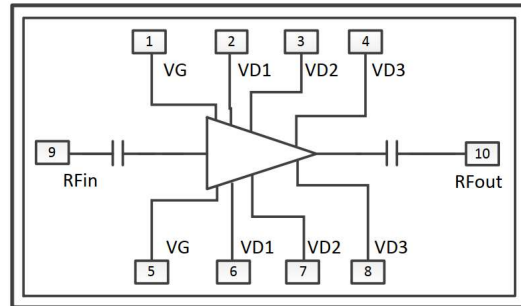


### Performance

- Frequency: 33~37GHz
- Typical Small Signal Gain: 20dB
- Typical Pout: 43.5dBm @24V
- Typical PAE: 22%
- Bias: 24V, -2V (Typical)
- Size: 3.6\*6.2mm\*0.08mm
- Technology: 0.15um HEMT
- Performance under pulse condition

### Function Diagram

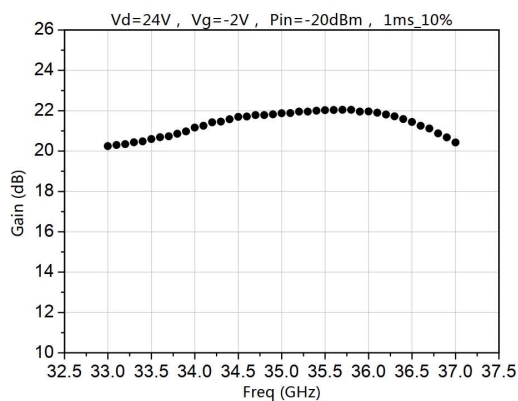


### Electrical Specifications ( $V_d=24V$ , $I_{dq}=3A$ , $F: 33\sim37GHz$ , $PW=100\mu s$ , $D.C 10\%$ )

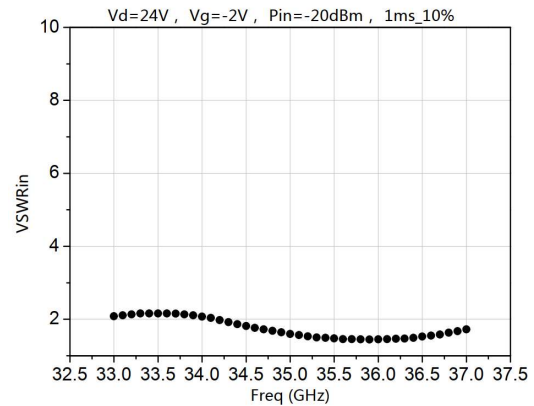
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	20	-	dB
Gp	Power Gain	-	15.5	-	dB
Pout	Saturated Power	-	43.5	-	dBm
PAE	Power Added Efficiency	-	20	-	%

### Test Curves

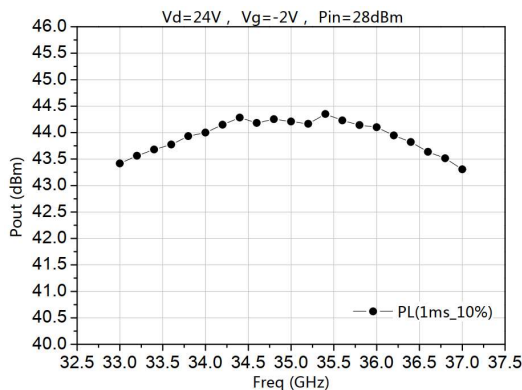
Small Signal Gain vs. Freq



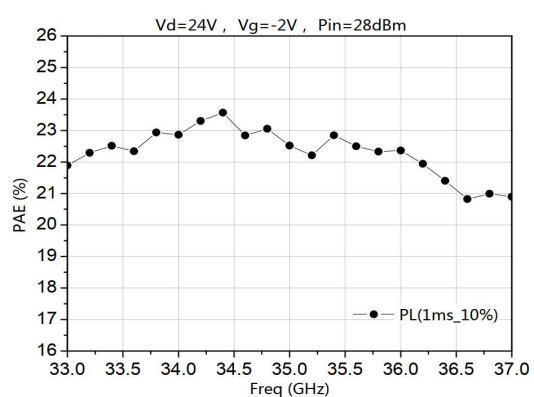
Input VSWR vs. Freq

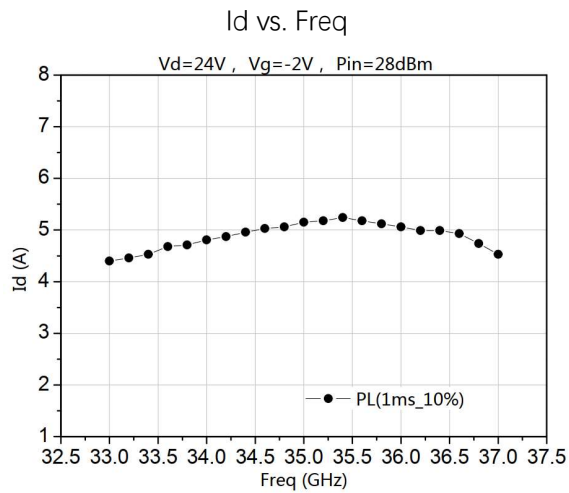


Output Power vs. Freq



PAE vs. Freq

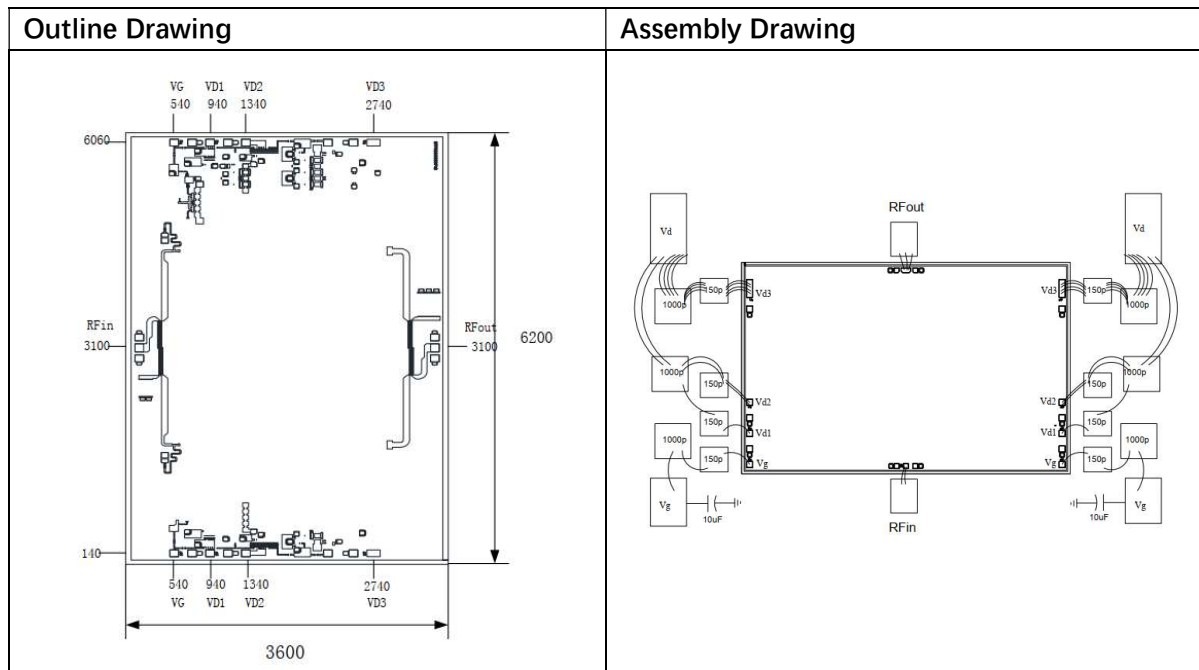




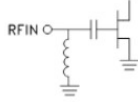

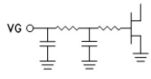

**Absolute Max Ratings (TA=25°C)**

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	28V	
Id	Drain Current	6A	
Vg	Gate Voltage	-10V	
Ig	Gate Current	100mA	
Pd	DC Power	100W	
Pin	Input Power	32dBm	
Tch	Channel Temperature	200°C	
Tm	Mounting Temperature	310°C	1min, N2 Protection
Tstg	Storage Temperature	-55~150°C	

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



Pads Definition

No.	Description	Equivalent Circuit
RFin	RF signal input, connect to 50Ω system, block capacitor is needed if there's external DC applied on this pad.	
RFout	RF signal output, connect to 50Ω system, block capacitor is not needed.	
VG	Amplifier grid bias, external 100pF, 1000pF capacitor is needed.	
VD1、VD2、VD3	Amplifier drain bias, external 100pF, 1000pF capacitor is needed.	
GND	Bottom has to be well connected with RF and DC.	