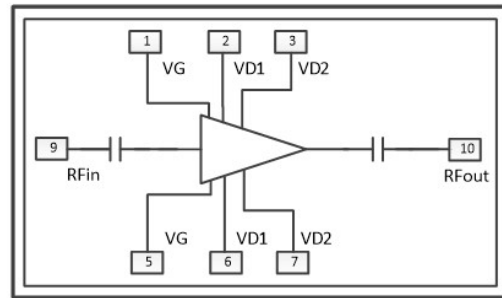


Performance

- Frequency: 6~18GHz
- Typical Small Signal Gain: 24dB
- Typical Pout: 41dBm @28V
- Typical PAE: 26%
- Bias: 28V, -1.8A (Typ.)
- Size: 3.5*3.55mm*0.08mm
- Technology: 0.20um HEMT
- Performance under CW operation

Function Diagram

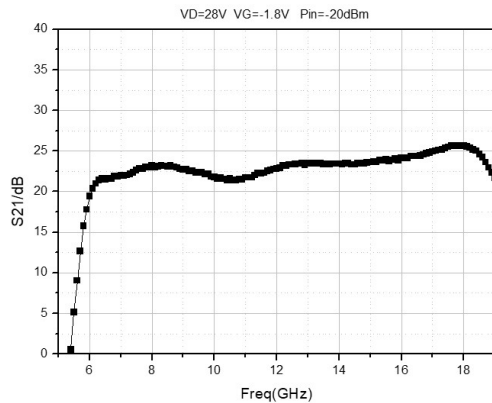


Electrical Specifications (Vd=28V, Idq=1.5A, F: 6~18GHz, CW)

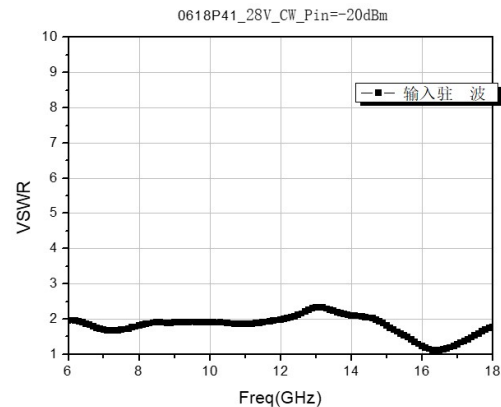
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	24	-	dB
Gp	Power Gain	-	16	-	dB
Pout	Saturated Power	-	41	-	dBm
PAE	Power Added Efficiency	-	26	-	%

Test Curves

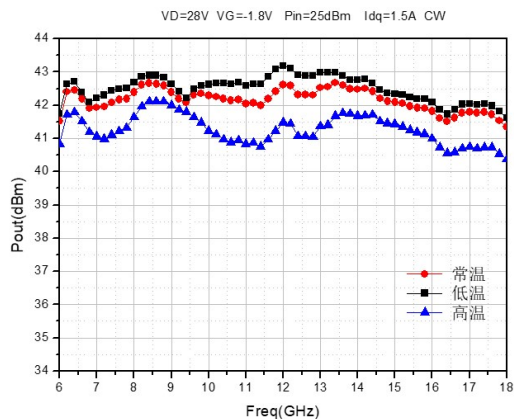
Small Signal Gain vs. Freq



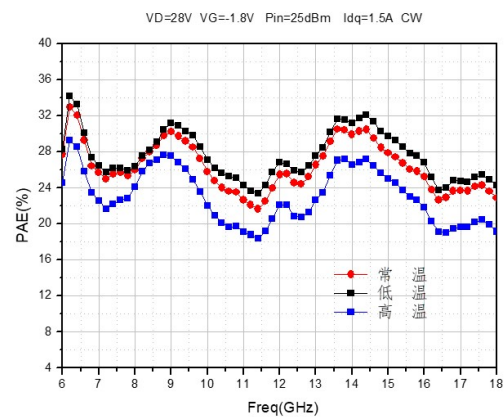
Input VSWR vs. Freq



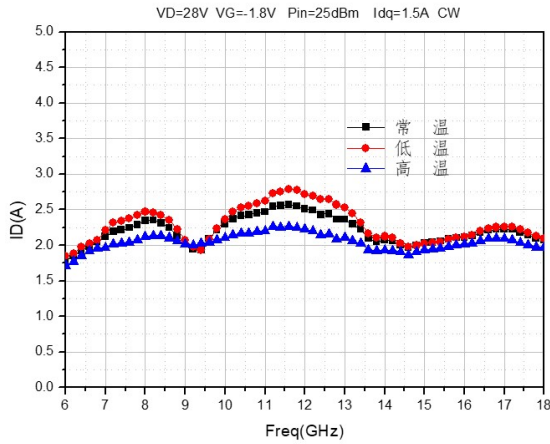
Output Power vs. Freq



PAE vs. Freq



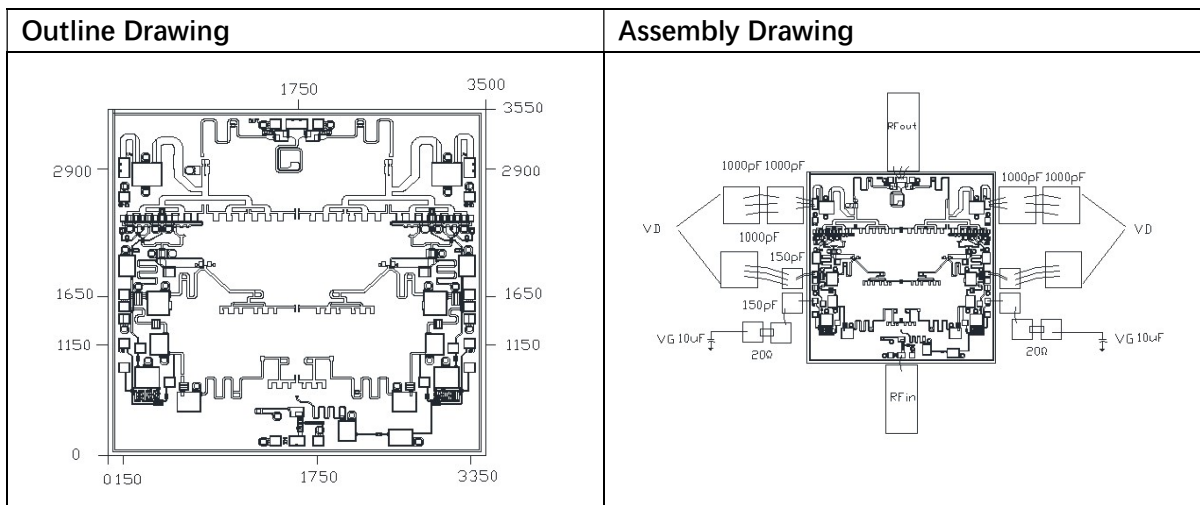
Drain Current vs. Freq



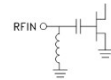

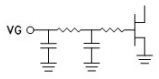

Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	30V	
Id	Drain Current	3A	
Vg	Gate Voltage	-10V	
Ig	Gate Current	50mA	
Pd	DC Power	70W	
Pin	Input Power	28dBm	
Tch	Channel Temperature	225°C	
Tm	Mounting Temperature	310°C	1min, N2 Protection
Tstg	Storage Temperature	-55~175°C	

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



Pin Definition

Pin	Description	Equivalent Circuit
RFin	RF Signal input, connect to 50ohm system, no need block capacitor	
RFout	RF Signal output, connect to 50ohm system, no need block capacitor	
VG	Amp gate bias, external 150pF, 1000pF capacitor is needed	
VD1、VD2、VD3	Amp drain bias, external 150pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	