

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 2.7~3.5GHz
- Typical Pout : 48dBm
- Typical Gain: 12dB
- Typical PAE: 55%
- Bias: 32V/-4~-2V
- Package: Metal Ceramic

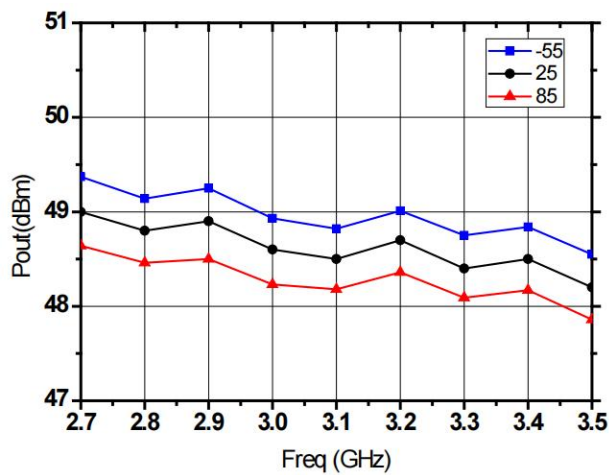


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=32\text{V}$, $V_g=-4\sim-2\text{V}$, $P_L=200\mu\text{s}$, $D.C=20\%$, $F: 2.7\sim3.5\text{GHz}$)

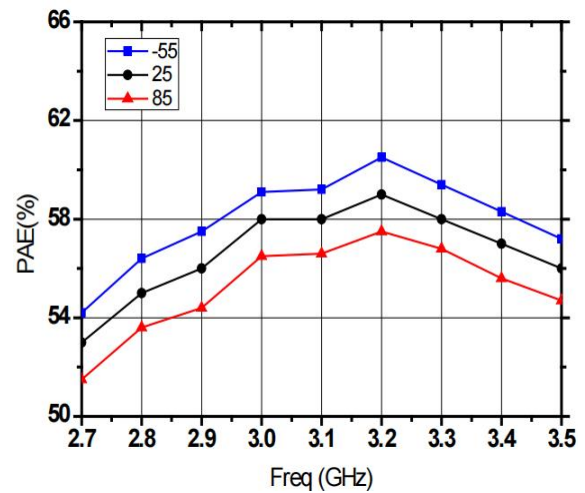
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	48	-	dBm
Gp	Power Gain	-	12	-	dB
η_{add}	Power Added Efficiency	-	55	-	%
ΔG_p	Gain Flatness	-0.6	-	+0.6	dB
Rth	Thermal Resistance	-	-	0.55	$^{\circ}\text{C}/\text{W}$

Test Curves

Pout&Freq. @ Different Temp.



PAE&Freq. @ Different Temp.

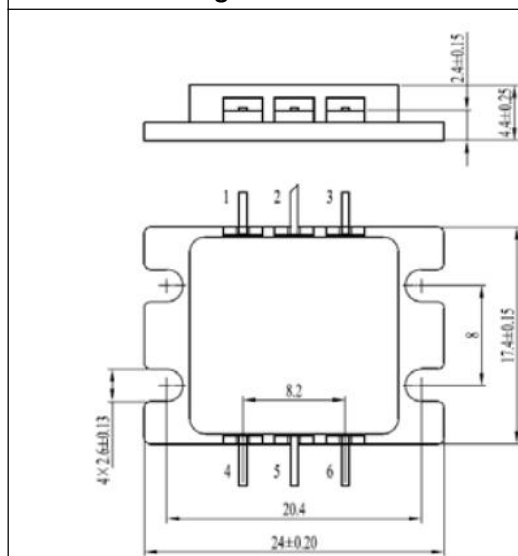


Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	40V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	100W	25°C
Tch	Channel Temperature	175°C	【1】
Tm	Mounting Temperature	300°C	1 min, N2 Protection
Tstg	Storage Temperature	-55~175°C	

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

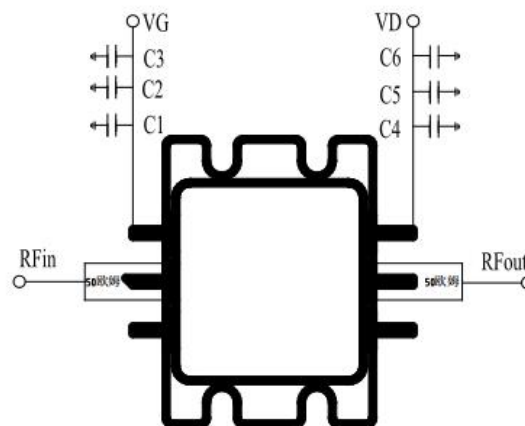
Outline Drawing



Pad Definition

No	Function	No	Function
1、3	Vg	4、6	Vd
2	RFin	5	RFout

Application Circuit



Note:

- (1) The typical packaging form is C164-2 shell packaging;
- (2) Connect the circuit according to the diagram, pay attention to anti-static, and ensure good grounding and heat dissipation when using power devices;
- (3) In order to ensure the good performance of the power module, the capacity value of the power filter and the energy storage capacitor shall be reasonably selected according to the modulation mode during pulse operation;
- (4) Recommended values for signal source modulation: $C1=C4=100\text{pf}$, $C2=C5=1000\text{pf}$, $C3=47\text{uf}$, $C6=100\text{uf}$; Recommended value of drain modulation: $C1=C4=100\text{pf}$, $C2=C5=1000\text{pf}$, $C3=47\text{uf}$, no $C6$.