

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 2.3~2.48GHz
- Typical Pout : 50dBm(CW)
- Typical Gain: 13dB
- Typical PAE: 60%
- Bias: 28V/-4~-2V
- Package: Metal Ceramic

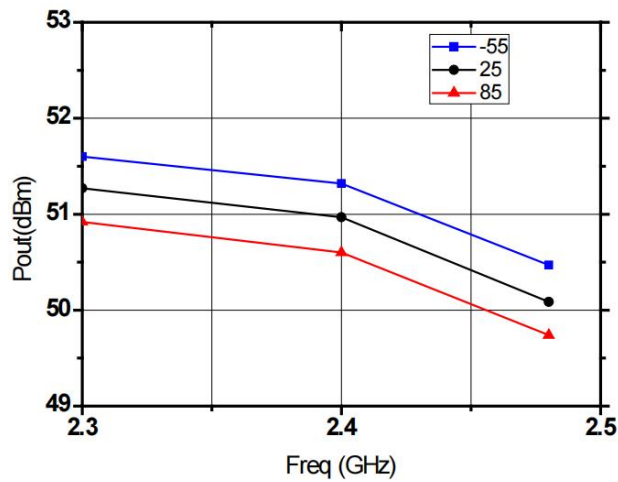


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=28\text{V}$, $I_d\approx 1.0\text{A}$, $P_{in}=39\text{dBm}$, $F: 2.3-2.48\text{GHz}$, CW)

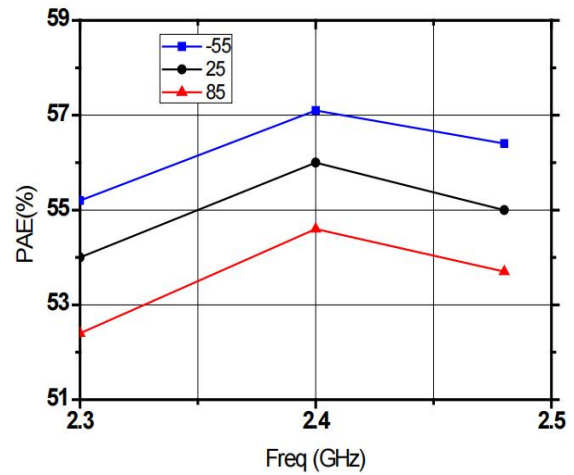
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	50	-	dBm
Gp	Power Gain	-	13	-	dB
η_{add}	Power Added Efficiency	-	60	-	%
Rth	Thermal Resistance	-	-	1.2	$^{\circ}\text{C/W}$

Test Curves

Pout&Freq. @ Different Temp.



PAE&Freq. @ Different Temp.



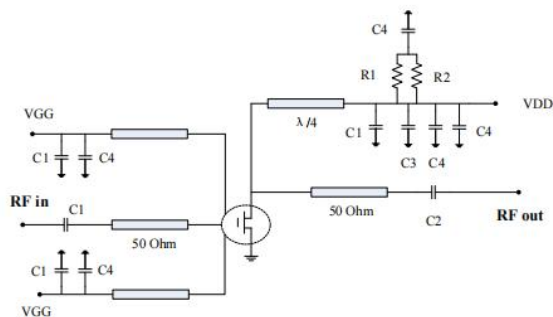
Absolute Max Ratings (T_A=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	36V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	125W	25℃
Tch	Channel Temperature	225℃	【1】
Tm	Mounting Temperature	300℃	1 min, N2 Protection
Tstg	Storage Temperature	-55~150℃	

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

Outline Drawing		Dimension Symbol													
The drawing shows a rectangular RF module. The top view is a rectangle with a central square area. The overall width is 24±0.20 mm and the overall height is 17.4±0.15 mm. The central square has a side length of 8.2 mm. There are four mounting holes, each with a diameter of 2.6±0.13 mm, located at the corners. The side view shows a total height of 4.4±0.25 mm, with a top section of 2.4±0.15 mm. Six pins are labeled: 1, 2, and 3 on the top edge; 4, 5, and 6 on the bottom edge. Pin 5 is the central output pin.		<table border="1"> <thead> <tr> <th>No</th> <th>Function</th> <th>No</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1、3</td> <td>Vg</td> <td>4、6</td> <td>Vd</td> </tr> <tr> <td>2</td> <td>RFin</td> <td>5</td> <td>RFout</td> </tr> </tbody> </table>		No	Function	No	Function	1、3	Vg	4、6	Vd	2	RFin	5	RFout
No	Function	No	Function												
1、3	Vg	4、6	Vd												
2	RFin	5	RFout												

Application Circuit



Designator	Description	Qty
R1	RES, 51, OHM, +/- 1%, 1/16W, 0603	1
R2	RES, 100, OHM, +/- 1%, 1/16W, 0603	1
C1	CAP, 20 pF, +/-0.25%, 100V, 0603	3
C2	ATC CAP, 33 pF, +/-1%, 100V, 0805	1
C3	CAP, 100.0 pF, +/-5%, 100V, 0603	1
C4	CAP, 1000 pF, 5%, 100V, 0603, X	3
C5	CAP, 2200 μF, 100V	1

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 power filter and energy storage capacitor shall be reasonably selected according to the modulation mode during pulse operation.