

Performance

- Technology: 0.25um Power GaN HEMT
- Frequency: 7.0~7.5GHz
- Typical Pout : 55dBm
- Typical Gain: 9dB
- Typical PAE: 45%
- Bias: 36V/-2.4V@8A
- Package: Metal Ceramic

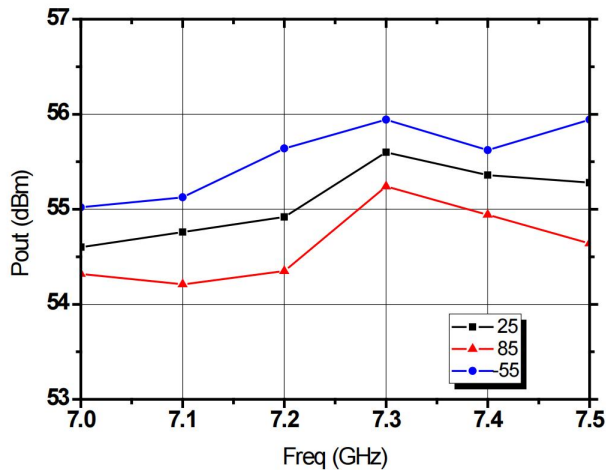


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=36\text{V}$, $V_g=-2.4\text{V}$, $I_d\approx 8\text{A}$, $F: 7.0\sim 7.5\text{GHz}$)

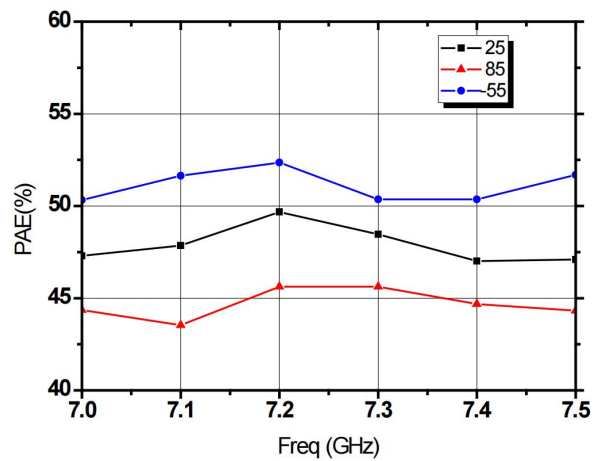
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	55	-	dBm
Gp	Power Gain	-	9	-	dB
η_{add}	Power Added Efficiency	-	45	-	%
ΔG_p	Gain Flatness	-0.8	-	+0.8	dB

Test Curves

Pout&Freq. @ Different Temp.



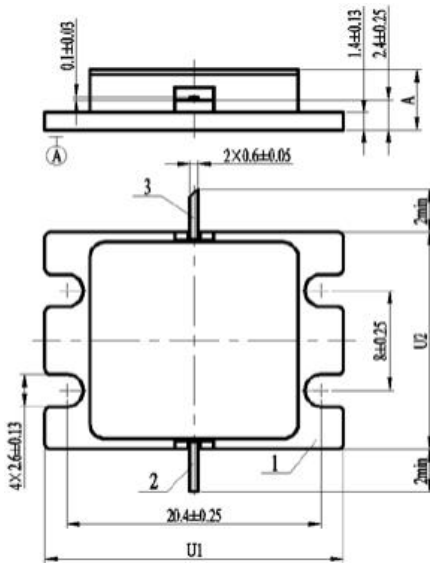
PAE&Freq. @ Different Temp.

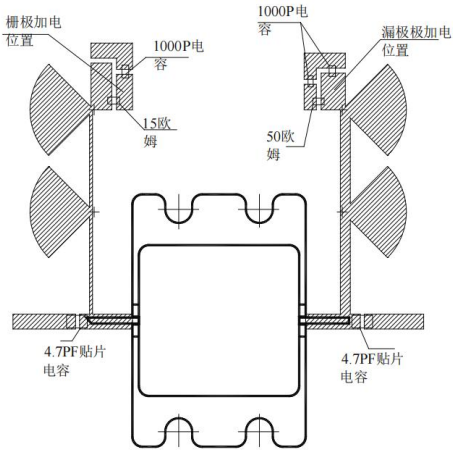


Absolute Max Ratings ($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Remark
V_d	Drain Voltage	60V	
V_g	Grid Voltage	-5V	
P_d	DC Dissipation	100W	25°C
T_{ch}	Channel Temperature	225°C	[1]
T_m	Mounting Temperature	300°C	1 min, N2 Protection
T_{stg}	Storage Temperature	-55~175°C	

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

Outline Drawing	Dimension Symbols														
 The drawing shows a top view and a side view of the transistor. The top view is a square with rounded corners, with dimensions U1 (width) and U2 (height). The side view shows the thickness of the device, with dimensions A (total thickness) and 0.1±0.03 (thickness of the top layer). Other dimensions include 2×0.6±0.05, 1.4±0.13, 2.4±0.25, 20.4±0.25, 4×2.6±0.13, 8±0.25, 2min, and 3.	<table><tr><th rowspan="2">Symbol</th><th colspan="2">Value (unit: mm)</th></tr><tr><th>Min.</th><th>Max.</th></tr><tr><td>U1</td><td>23.80</td><td>24.20</td></tr><tr><td>U2</td><td>17.20</td><td>17.60</td></tr><tr><td>A</td><td>-</td><td>5.2</td></tr></table>	Symbol	Value (unit: mm)		Min.	Max.	U1	23.80	24.20	U2	17.20	17.60	A	-	5.2
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U1	23.80	24.20													
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Application Circuit
 The diagram shows the transistor in a common source configuration. The gate is connected to a 15 ohm resistor and a 1000P capacitor. The drain is connected to a 50 ohm resistor and a 1000P capacitor. The source is connected to a 4.7PF capacitor. The output is connected to a 4.7PF capacitor. The input and output are labeled as 栅极加电位置 (Gate Bias Position) and 漏极加电位置 (Drain Bias Position).

Note:

- (1) This product is an internal matching tube, and the input and output impedance values are both 50 ohms;
- (2) Please strictly follow the order of adding negative electricity first and then positive electricity in the power-on sequence. When de-energizing, first reduce the drain voltage and then reduce the gate voltage;
- (3) This product is a high-power device. It is necessary to pay attention to heat dissipation during use. The higher the case temperature, the shorter the service life. It is advisable to use the temperature not higher than 80 degrees;
- (4) This product is an electrostatic sensitive device. It is necessary to pay attention to electrostatic protection during storage and use, and it needs to be well grounded when using it.