

Performance

- Technology: 0.25um Power GaN HEMT
- Frequency: 4.4~5.0GHz
- Typical Pout : 53dBm
- Typical Gain: 10dB
- Typical PAE: 55%
- Bias: 28V/-2.4V
- Package: Metal Ceramic

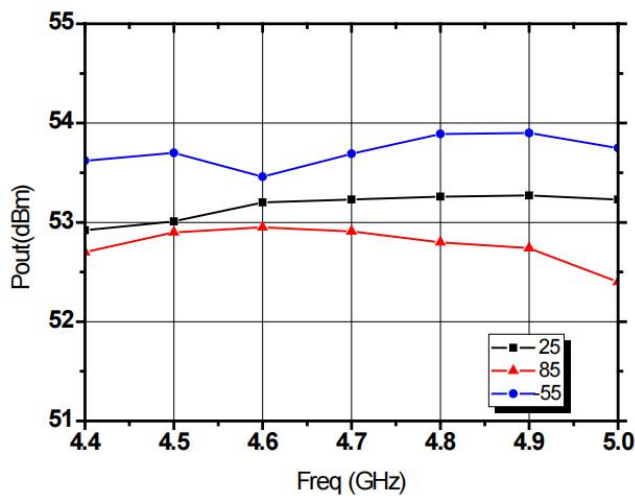


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=28\text{V}$, $V_g=-2.4\text{V}$, $I_d\approx 12.8\text{A}$, $F: 4.4\sim 5.0\text{GHz}$, $PL=1\text{ms}$, $D.C=15\%$)

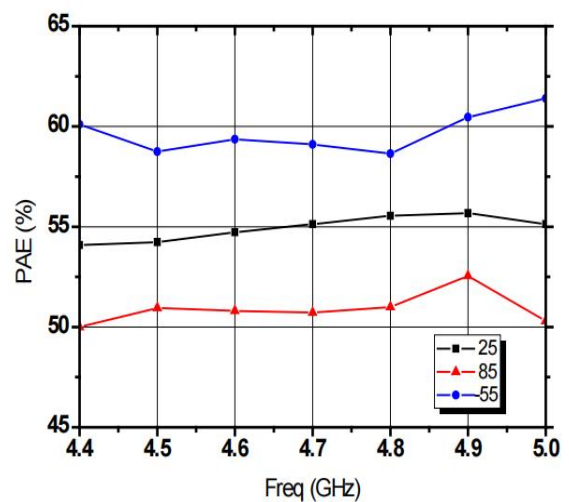
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	53	-	dBm
Gp	Power Gain	-	10	-	dB
η_{add}	Power Added Efficiency	-	55	-	%
ΔGp	Gain Flatness	-0.8	-	+0.8	dB

Test Curves

Pout&Freq. @ Different Temp.



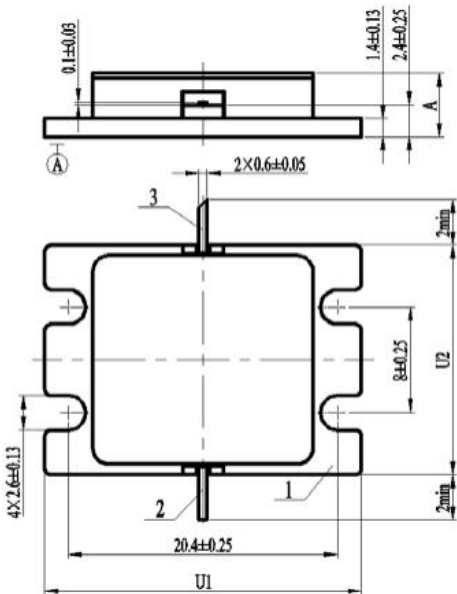
PAE&Freq. @ Different Temp.

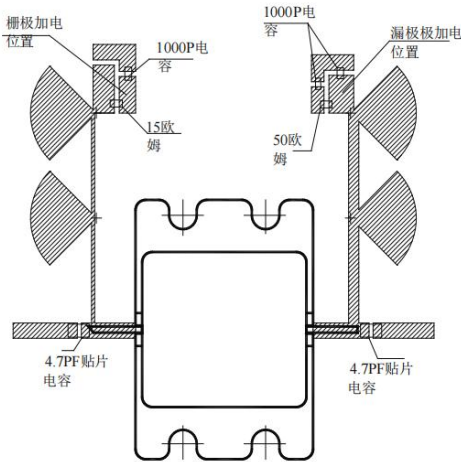


Absolute Max Ratings ($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Remark
V_d	Drain Voltage	36V	
V_g	Grid Voltage	-5V	
P_d	DC Dissipation	360W	25°C
T_{ch}	Channel Temperature	175°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 2.4±0.25, 1.4±0.13, 2×0.6±0.05, 20.4±0.25, 8±0.25, 4×2.6±0.13, and 2min.	<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													
U2	17.20	17.60													
A	-	5.2													

Application Circuit
 The diagram shows the transistor in a circuit. 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 diagram also shows the locations for grid and drain biasing.

Note:

- (1) This product is an internal matching tube, with input and output impedance values of 50 ohms;
- (2) The power-on sequence shall be in strict accordance with the sequence of applying negative power first and then positive power. When power-off, the leakage voltage shall be reduced first and then the grid voltage shall be reduced;
- (3) This product is a high-power device. Pay attention to heat dissipation during use. The higher the shell temperature is, the shorter the service life is. The service temperature should not be higher than 80 °C;
- (4) This product is an electrostatic sensitive device. It needs to pay attention to electrostatic protection during storage and use, and it needs to be grounded well during use.