

Performance

- Technology: 0.25um Power GaN HEMT
- Frequency: 4.0~5.0GHz
- Typical Pout : 49dBm(CW)
- Typical Gain: 10dB
- Typical PAE: 50%
- Bias: 28V/-4~-2V
- Impedance: 50Ω
- Package: Metal Ceramic

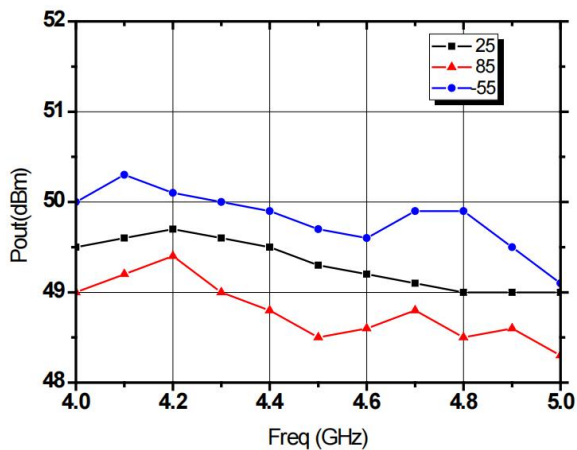


Electrical Specifications (TA=25°C, Vd=28V, Vg=-4~-2V, Id≈6A, F: 4.0~5.0GHz)

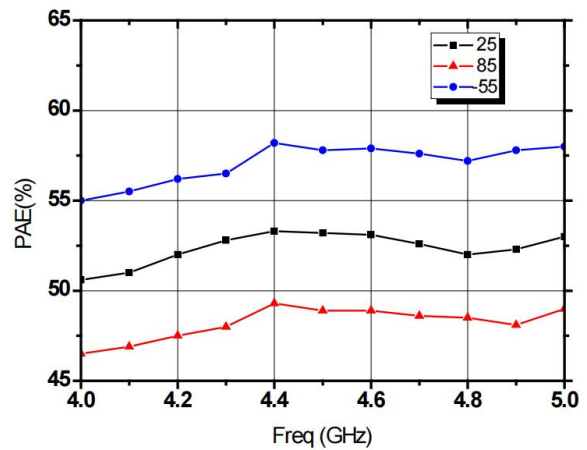
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	49	-	dBm
Gp	Power Gain	-	10	-	dB
η_{add}	Power Added Efficiency	-	50	-	%
ΔGp	Gain Flatness	-0.8	-	+0.8	dB
IM3	3rd harmonic (linear power transistor)		28		dBc

Test Curves

Pout&Freq. @ Different Temp.



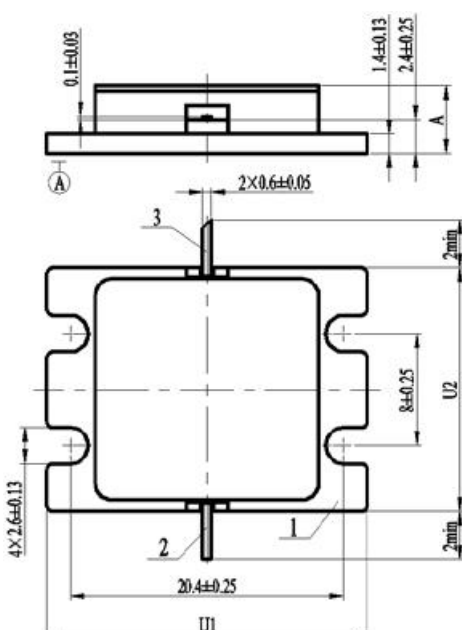
PAE&Freq. @ Different Temp.

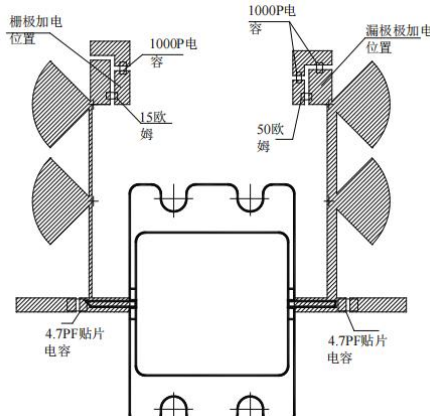


Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	40V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	200W	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	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 height) and 2min (minimum height). Other dimensions include 0.1±0.03, 1.4±0.13, 2.4±0.25, 2×0.6±0.05, 8±0.25, 4×2.6±0.13, and 20.4±0.25.	<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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	Min.	Max.													
U1	23.80	24.20													
U2	17.20	17.60													
A	-	5.2													

Application Circuit
 The diagram shows the internal matching tube with input and output impedances of 50 ohms. It includes a 1000P capacitor, a 15 ohm resistor, a 50 ohm resistor, and a 4.7PF capacitor. The diagram is labeled with '栅极加电位置' (Gate power position), '漏极加电位置' (Drain power position), '1000P电容' (1000P capacitor), '15欧姆' (15 ohm), '50欧姆' (50 ohm), and '4.7PF贴片电容' (4.7PF surface capacitor).

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.