

Performance

- Technology: 0.25um Power HEMT
- Frequency: 6.5~7.0GHz
- Typical Pout : 52dBm
- Typical Gain: 10dB
- Typical PAE: 45%
- Bias: 28V/-2.8V@13A
- Package: Metal Ceramic

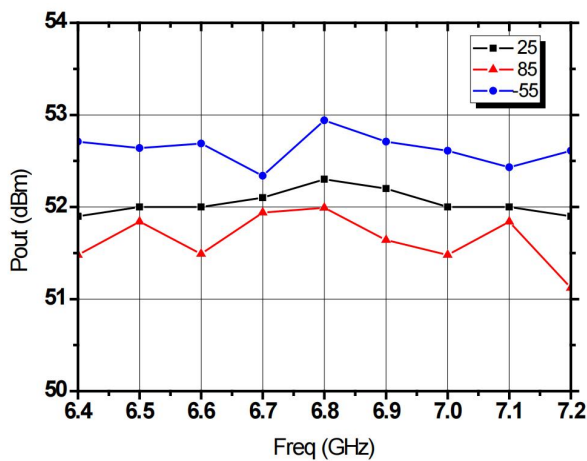


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=28\text{V}$, $V_g=-2.8\text{V}$, $I_d\approx 13\text{A}$, $F: 6.5\sim 7.0\text{GHz}$, $PL=350\mu\text{s}$, $D.C=35\%$)

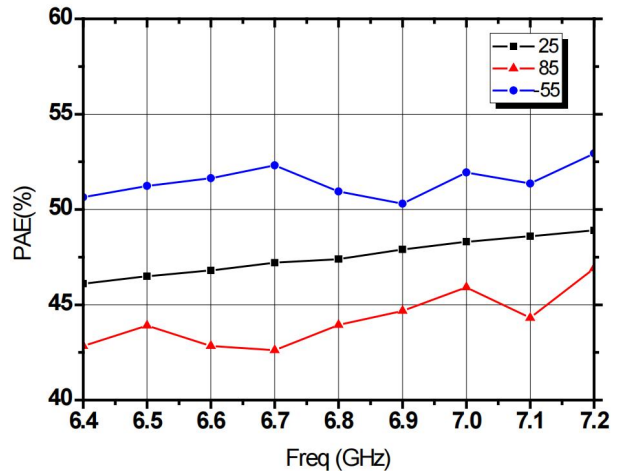
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	51.7	52	-	dBm
Gp	Power Gain	9	10	-	dB
η_{add}	Power Added Efficiency	40	45	-	%
ΔGp	Gain Flatness	-0.8	-	+0.8	dB

Test Curves

Pout&Freq. @ Different Temp.



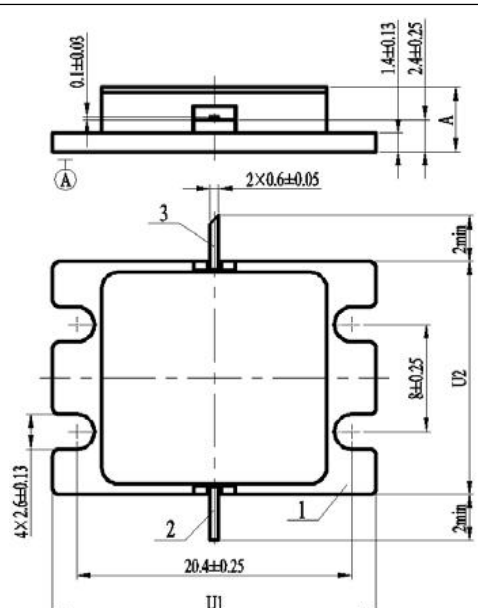
PAE&Freq. @ Different Temp.

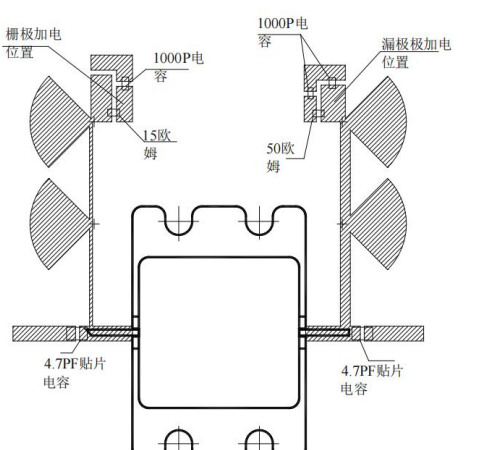


Absolute Max Ratings ($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Remark
V_d	Drain Voltage	40V	
V_g	Grid Voltage	-5V	
P_d	DC Dissipation	360W	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 the physical dimensions of the transistor. The top view is a square with rounded corners, with a central square area. Dimensions include: overall width $U1$, overall height $U2$, central square width 20.4 ± 0.25, central square height 8 ± 0.25, and a central square width of $2 \times 0.6 \pm 0.05$. The side view shows a height of 0.1 ± 0.05 and a base height of 2.4 ± 0.25. A dimension A is also indicated for the base height.	<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 circuit configuration. The gate is connected to a 1000P capacitor and a 15 ohm resistor. The drain is connected to a 1000P capacitor and a 50 ohm resistor. The source is connected to a 4.7PF capacitor. The diagram also shows the gate and drain positions relative to the transistor package.

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.