

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 3.3~3.7GHz
- Typical Pout : 52dBm
- Typical Gain: 11dB
- Typical PAE: 57%
- Bias: 28V/-3V
- Mode: D.C $\leq 20\%$, PL $\leq 2\text{ms}$
- Package: Metal Ceramic

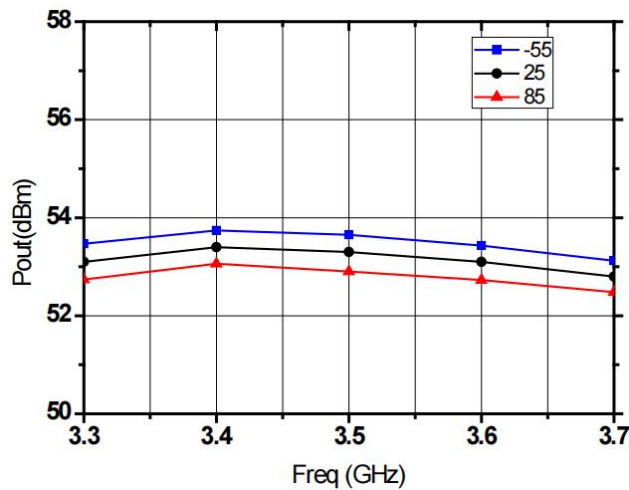


Electrical Specifications ($T_A=25^\circ\text{C}$, $V_d=28\text{V}$, $I_d \approx 0.3\text{A}$, $P_{in}=41\text{dBm}$, $F: 3.3 \sim 3.7\text{GHz}$)

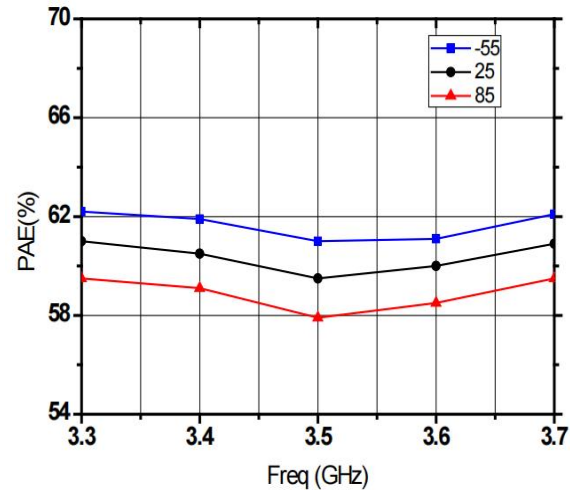
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	52	-	dBm
Gp	Power Gain	10.5	11	-	dB
η_{add}	Power Added Efficiency	-	57	-	%
ΔG_p	Gain Flatness	-0.4	-	+0.4	dB
Rth	Thermal Resistance	-	-	0.23	$^\circ\text{C/W}$

Test Curves

Pout&Freq. @ Different Temp.



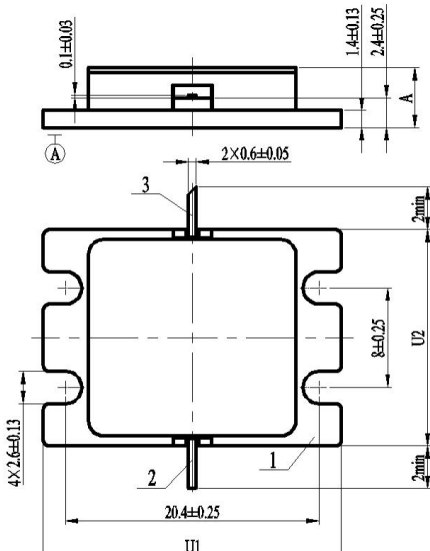
PAE&Freq. @ Different Temp.



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

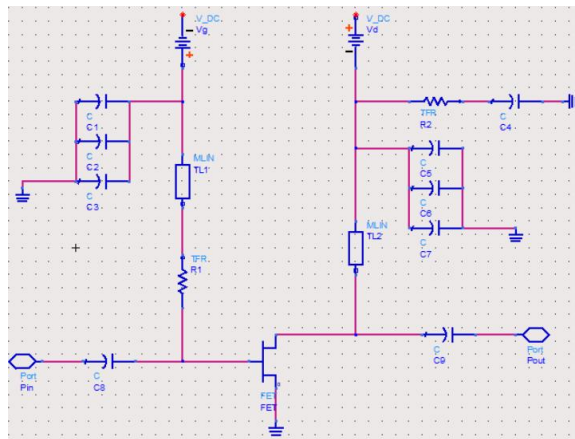
Symbol	Parameter	Value	Remark
Vd	Drain Voltage	40V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	125W	25°C
Tch	Channel Temperature	225°C	【1】
Tm	Mounting Temperature	300°C	1 min, N ₂ Protection
Tstg	Storage Temperature	-55~150°C	

【1】 Exceeding any one or combination of these limits may cause permanent damage.

Outline Drawing	Dimension Symbol														
 The drawing shows a top view and a side view of the transistor package. The top view is a square with rounded corners, with dimensions U1 (width) and U2 (height). The side view shows the package height A and the mounting tab dimensions. Key dimensions include: 0.1±0.05 (top tab width), 1.4±0.13 (top tab height), 2.4±0.25 (top tab width), 2×0.6±0.05 (mounting tab width), 2mm (mounting tab height), 8±0.25 (package width), 20.4±0.25 (package length), 4×2.6±0.13 (package width), 2mm (package height), and 2mm (package width).	<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

Parameter	Symbol	Value	Unit
Filter capacitor	C1,C2,C4, C5,C6	1000	pF
Filter capacitor	C3,C7	100	pF
DC isolation capacitance	C8,C9	20	pF
Stabilizing resistance	R1	15	Ω
Resistance	R2	50	Ω
Microstrip line	TL1,TL2	λ/4	-



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.