

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 2.7~3.5GHz
- Typical Pout : 54dBm
- Typical Gain: 12dB
- Typical PAE: 55%
- Bias: 32V/-3V
- Mode: D.C=30%, PL=300us
- Package: Metal Ceramic

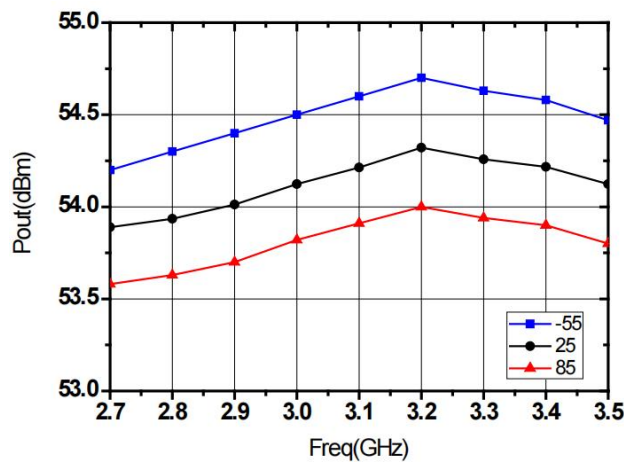


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=50\text{V}$, $I_d \approx 8\text{A}$, $P_{in}=44\text{dBm}$, $t=300\mu\text{s}$, $D=20\%$, $F: 2.7 \sim 3.5\text{GHz}$)

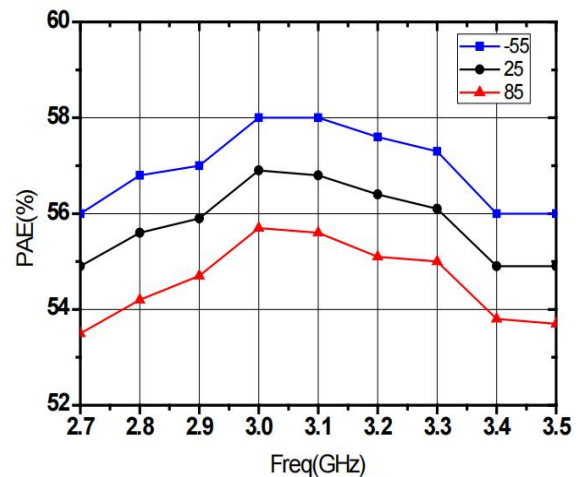
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	53.5	54	-	dBm
Gp	Power Gain	9.5	12	-	dB
η_{add}	Power Added Efficiency	52	55	-	%
ΔG_p	Gain Flatness	-0.5	-	+0.5	dB
Rth	Thermal Resistance	-	-	0.24	$^{\circ}\text{C/W}$

Test Curves

Pout&Freq. @ Different Temp.



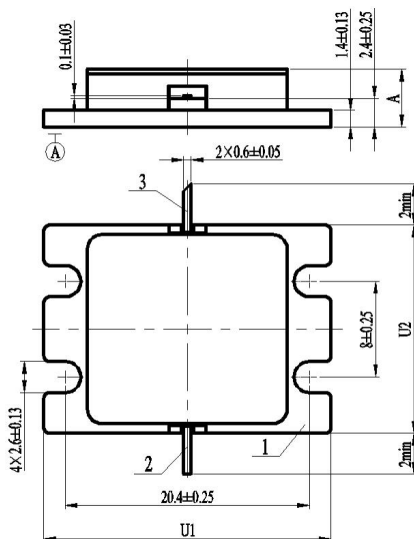
PAE&Freq. @ Different Temp.



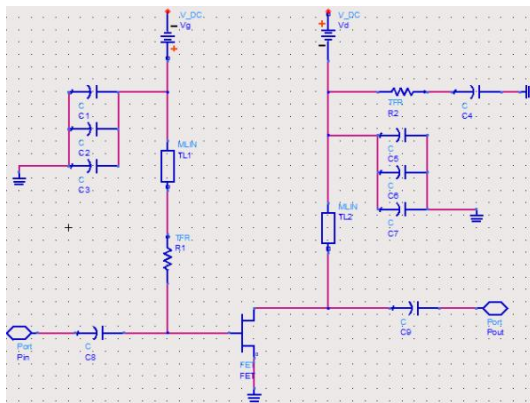
Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	40V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	125W	25°C
Tch	Channel Temperature	225°C	【1】
Tm	Mounting Temperature	300°C	1 min, N2 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 square package with four mounting tabs. Key dimensions include: overall width U1 = 20.4±0.25 mm, overall height U2 = 8.4±0.25 mm, mounting tab width 2.4±0.25 mm, mounting tab height 1.4±0.13 mm, and a central feature width of 2×0.6±0.05 mm. A side view shows a height of 0.1±0.03 mm for the central feature.	<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.													
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U2	17.20	17.60													
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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.