

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 3.1~3.4GHz
- Typical Pout : 55dBm
- Typical Gain: 12dB
- Typical PAE: 55%
- Bias: 32V/-3V
- Package: Metal Ceramic

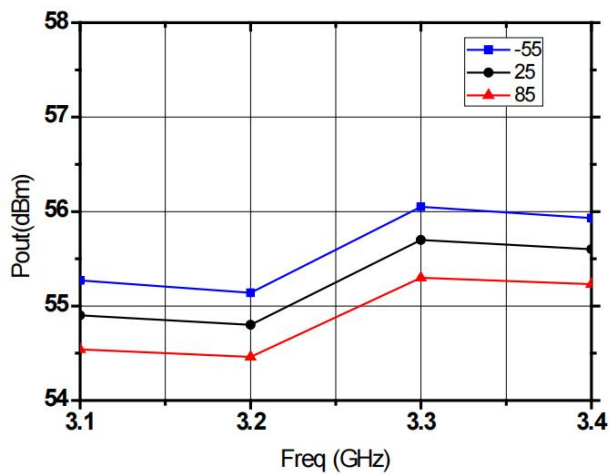


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=32\text{V}$, $I_d\approx 0.1\text{A}$, $PL=200\mu\text{s}$, $D.C=20\%$, $F: 3.1\sim 3.4\text{GHz}$)

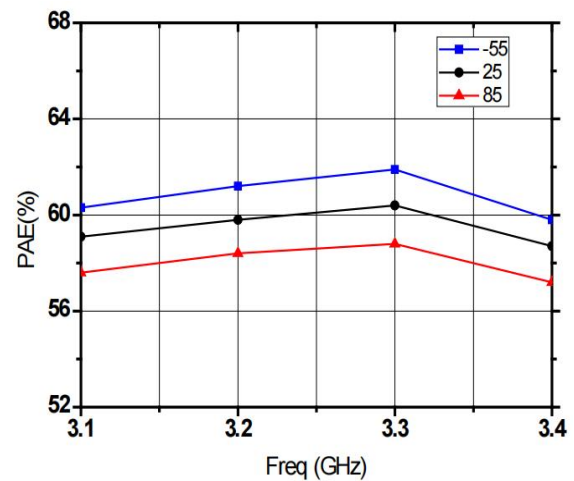
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	55	-	dBm
Gp	Power Gain	-	12	-	dB
η_{add}	Power Added Efficiency	-	60	-	%
ΔG_p	Gain Flatness	-0.8	-	+0.8	dB
Rth	Thermal Resistance	-	-	0.22	$^{\circ}\text{C}/\text{W}$

Test Curves

Pout&Freq. @ Different Temp.



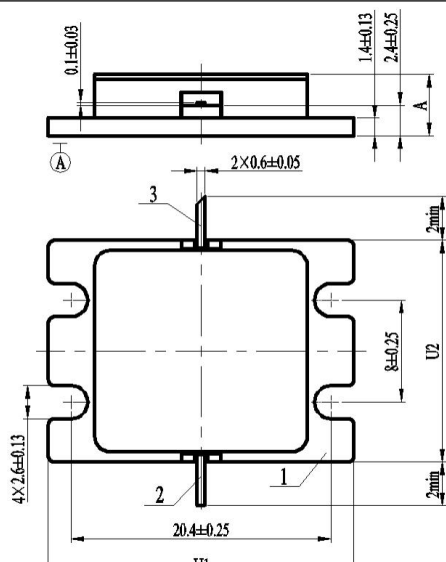
PAE&Freq. @ Different Temp.



Absolute Max Ratings (T_A=25°C)

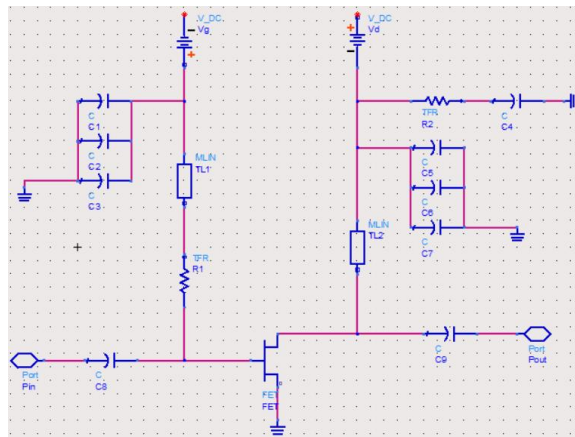
Symbol	Parameter	Value	Remark
V _d	Drain Voltage	40V	
V _g	Grid Voltage	-5V	
P _d	DC Dissipation	150W	25°C
T _{ch}	Channel Temperature	225°C	【1】
T _m	Mounting Temperature	300°C	1 min, N ₂ Protection
T _{stg}	Storage Temperature	-55~150°C	

【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. The top view is a square with rounded corners, with dimensions U1 (width), U2 (height), and 20.4±0.25 (width of the central square). The side view shows the thickness of the package, with dimensions 0.1±0.03 (thickness of the top layer), 1.4±0.13 (thickness of the middle layer), and 2.4±0.25 (thickness of the bottom layer). The package is mounted on a substrate with dimensions 2X0.6±0.05 (width of the mounting pads) and 2min (minimum distance between pads). The package is labeled with 1, 2, and 3, indicating the drain, gate, and source pins respectively.	<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.