

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 3.1~3.5GHz
- Typical Pout : 55.8dBm
- Typical Gain: 12dB
- Typical PAE: 55%
- Bias: 36V/-2.3V
- Package: Metal Ceramic

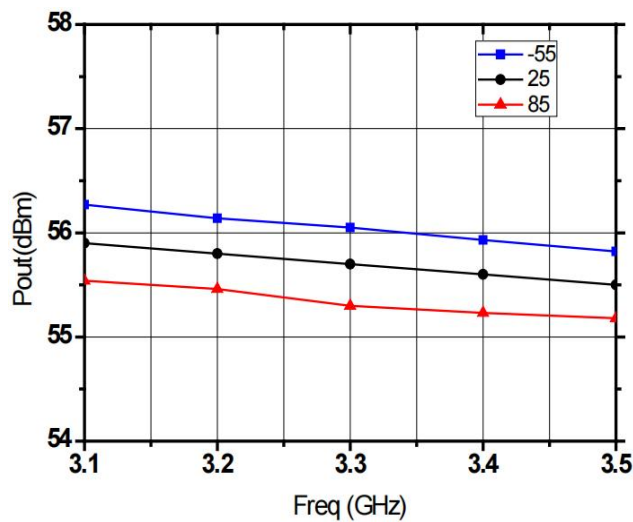


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=36\text{V}$, $I_d\approx 0.1\text{A}$, $t=200\mu\text{s}$, $D.C=20\%$, $F: 3.1\sim 3.5\text{GHz}$)

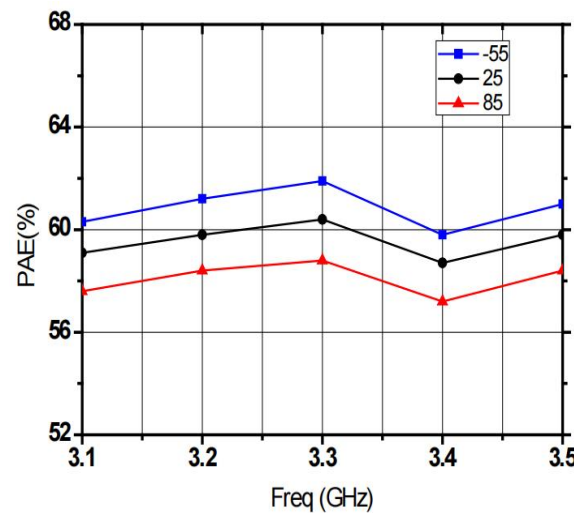
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	55.5	55.8	-	dBm
Gp	Power Gain	-	12	-	dB
η_{add}	Power Added Efficiency	-	60	-	%
ΔG_p	Gain Flatness	-0.8	-	+0.8	dB
Rth	Thermal Resistance	-	-	0.21	$^{\circ}\text{C}/\text{W}$

Test Curves

Pout&Freq. @ Different Temp.



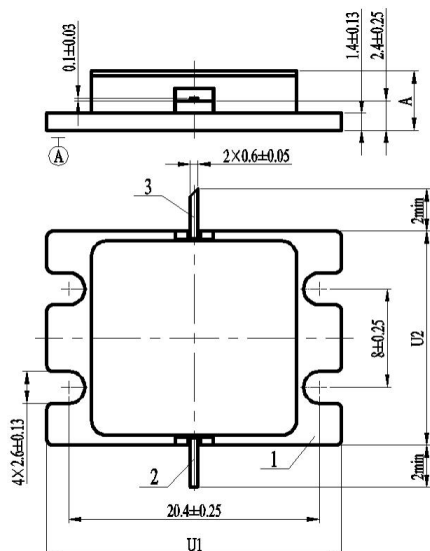
PAE&Freq. @ Different Temp.



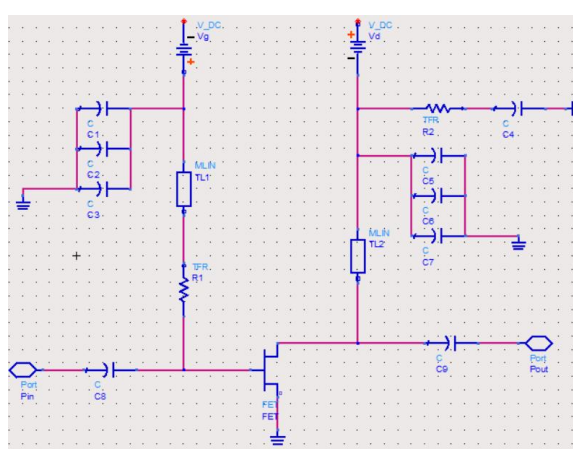
Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	60V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	150W	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														
	<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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Application Circuit

	<table><tr><th>Parameter</th><th>Symbol</th><th>Value</th><th>Unit</th></tr><tr><td>Filter capacitor</td><td>C1,C2,C4, C5,C6</td><td>1000</td><td>pF</td></tr><tr><td>Filter capacitor</td><td>C3,C7</td><td>100</td><td>pF</td></tr><tr><td>DC isolation capacitance</td><td>C8,C9</td><td>20</td><td>pF</td></tr><tr><td>Stabilizing resistance</td><td>R1</td><td>15</td><td>Ω</td></tr><tr><td>Resistance</td><td>R2</td><td>50</td><td>Ω</td></tr><tr><td>Microstrip line</td><td>TL1,TL2</td><td>$\lambda/4$</td><td>-</td></tr></table>	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	$\lambda/4$	-
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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.