

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 2.7~3.5GHz
- Typical Pout : 51dBm
- Typical Gain: 12dB
- Typical PAE: 55%
- Bias: 32V/-3V
- Package: Metal Ceramic

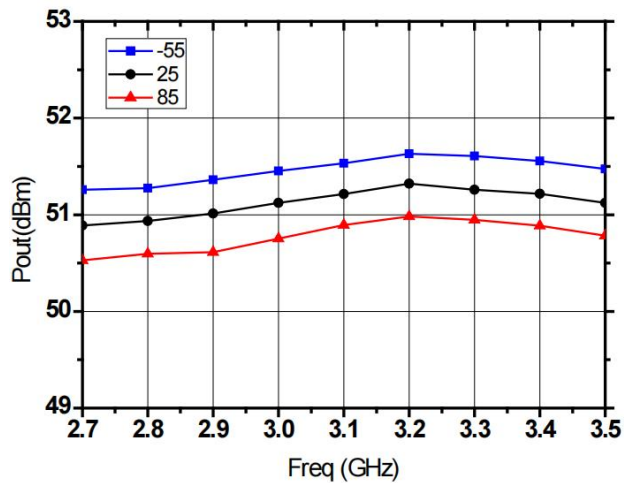


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=32\text{V}$, $I_d\approx 0.1\text{A}$, $\text{Pin}=39\text{dBm}$, $t=300\mu\text{s}$, $D=20\%$, $F: 2.7\sim 3.5\text{GHz}$)

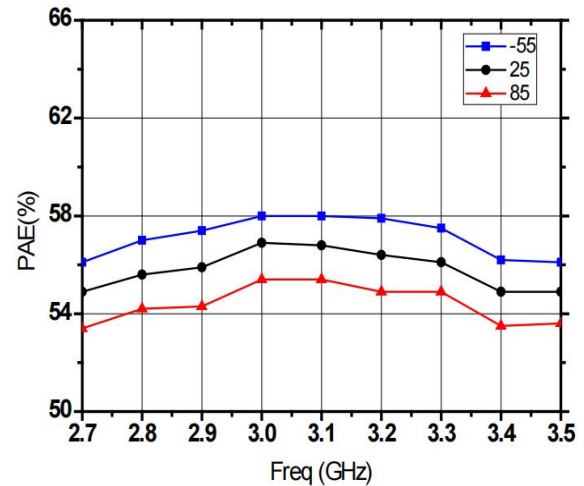
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	51	-	dBm
Gp	Power Gain	-	12	-	dB
η_{add}	Power Added Efficiency	52	55	-	%
ΔG_p	Gain Flatness	-0.5	-	+0.5	dB
Rth	Thermal Resistance	-	-	0.3	$^{\circ}\text{C}/\text{W}$

Test Curves

Pout&Freq. @ Different Temp.



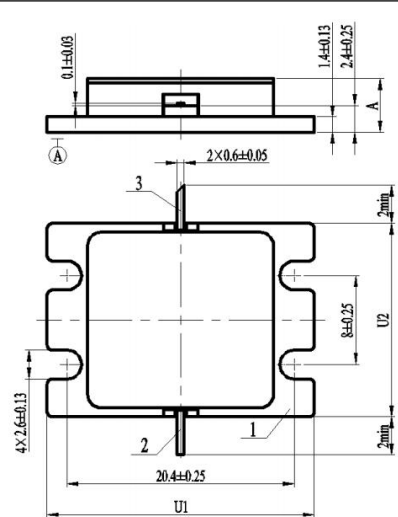
PAE&Freq. @ Different Temp.



Absolute Max Ratings (T_A=25°C)

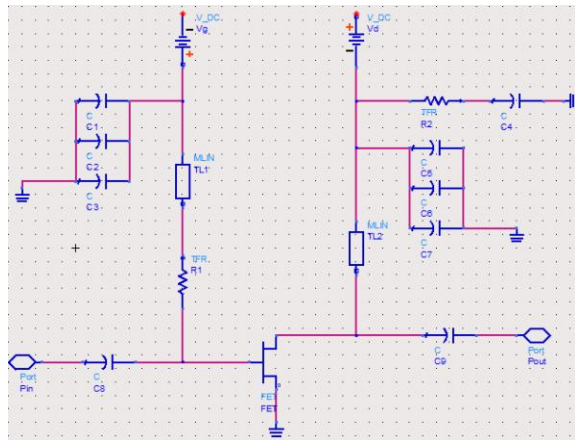
Symbol	Parameter	Value	Remark
V _d	Drain Voltage	40V	
V _g	Grid Voltage	-5V	
P _d	DC Dissipation	125W	25°C
T _{ch}	Channel Temperature	225°C	【1】
T _m	Mounting Temperature	300°C	1 min, N ₂ Protection
T _{stg}	Storage Temperature	-55~150°C	

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

Outline Drawing	Dimension Symbol
 The drawing shows a GaN Transistor package. The top view is a square with rounded corners, labeled with dimensions U1 (width) and U2 (height). The side view shows the package profile with dimensions A (height) and 0.1±0.05 (thickness). The package has a central square area labeled 1, and four mounting tabs labeled 2 and 3. The dimensions are: U1 = 20.4±0.25, U2 = 17.20, A = 5.2, 0.1±0.05, 1.44±0.13, 2.44±0.25, 2×0.6±0.05, 8±0.25, 4×2.6±0.13, 2min, 3min, 1min, 2min	

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.