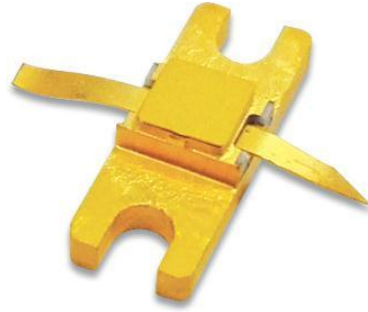


Performance

- Technology: 0.5um Power GaN HEMT
- Frequency: 0.01~0.05GHz
- Typical Pout: 37dBm
- Typical Gain: 17dB
- Typical PAE: 50%
- Bias: 28V/-2V
- Package: Metal Ceramic

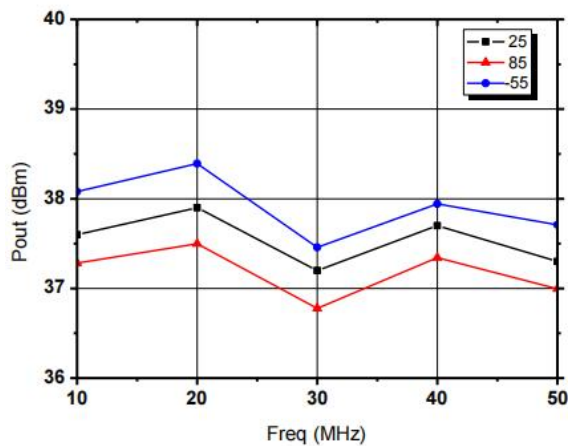


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=28\text{V}$ (PL=200us, D.C=8%), $V_g=-3\text{V}$, F: 0.01~0.05GHz)

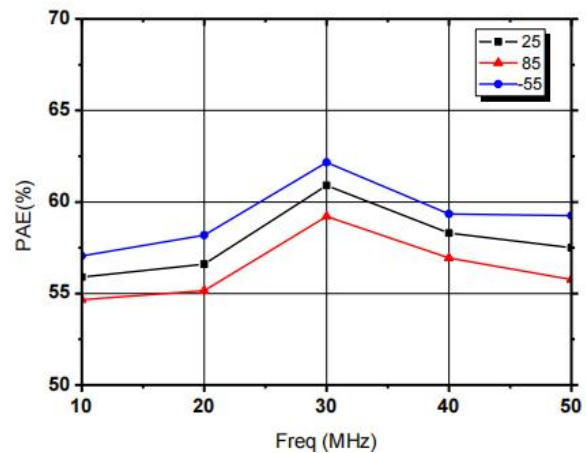
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	37	-	dBm
Gp	Power Gain	-	17	-	dB
η_{add}	Power Added Efficiency	-	50	-	%
Rth	Thermal Resistance	-	-	+	$^{\circ}\text{C/W}$

Test Curves

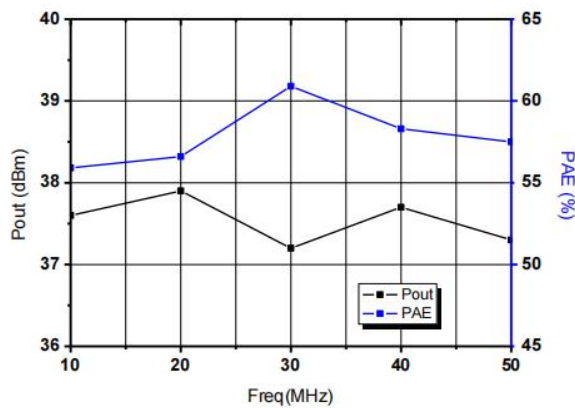
Pout&Freq. @ Different Temp.



PAE&Freq. @ Different Temp.



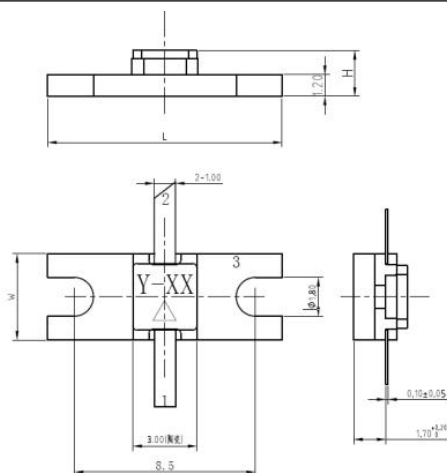
Pout, PAE&Freq.

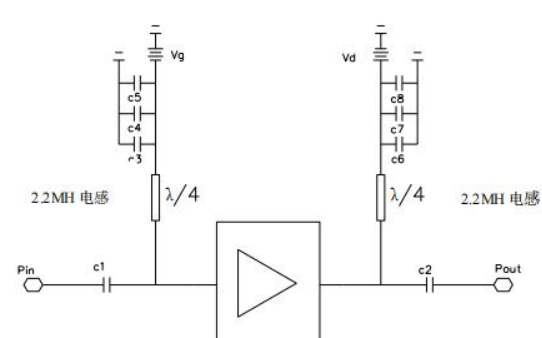


Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	50V	
Vg	Grid Voltage	-5V	
Tch	Channel Temperature	225°C	【1】
Tm	Mounting Temperature	300°C	1 min, N2 Protection
Tstg	Storage Temperature	-55~150°C	
Tc	Operating Temperature	-55~85°C	

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

Outline Drawing	Dimension Symbols																			
 The drawing shows three views of the transistor package. The top view shows a central pad with a diameter of 2.10 ± 0.05 mm and four side pads with a diameter of 1.70 ± 0.05 mm. The front view shows the package height H and the distance between the side pads L. The side view shows the package width W and the distance between the side pads L. The package is labeled 'Y-XX'.	<table><tr><th rowspan="2">Symbol</th><th colspan="3">Value (unit: mm)</th></tr><tr><th>Min.</th><th>Typ.</th><th>Max.</th></tr><tr><td>W</td><td>3.8</td><td>4.0</td><td>4.2</td></tr><tr><td>L</td><td>10.8</td><td>11.0</td><td>11.2</td></tr><tr><td>H</td><td>2.45</td><td>2.65</td><td>2.85</td></tr></table>	Symbol	Value (unit: mm)			Min.	Typ.	Max.	W	3.8	4.0	4.2	L	10.8	11.0	11.2	H	2.45	2.65	2.85
Symbol	Value (unit: mm)																			
	Min.	Typ.	Max.																	
W	3.8	4.0	4.2																	
L	10.8	11.0	11.2																	
H	2.45	2.65	2.85																	

Application Circuit											
 The diagram shows a common-source amplifier circuit. The input signal Pin is connected to the gate of the transistor through a capacitor c1. The gate is biased by a voltage divider consisting of capacitors c5 and c4, connected to a grid voltage Vg. The gate is also connected to ground through a capacitor c3. The drain of the transistor is connected to a load capacitor c2 and a 2.2MHz inductor through a capacitor c6. The drain is also connected to a voltage divider consisting of capacitors c8 and c7, connected to a drain voltage Vd. The output signal Pout is taken from the drain. The transistor is represented by a triangle symbol. The circuit is labeled with '2.2MH 电感' (2.2MHz inductor) and 'λ/4' (λ/4 wave).	<table> <tr> <th>No</th><th>Value</th></tr> <tr> <td>C1、C2</td><td>100pF</td></tr> <tr> <td>C3、C6</td><td>100pF</td></tr> <tr> <td>C4、C7</td><td>1000pF</td></tr> <tr> <td>C5、C8</td><td>>10uF(electrolytic capacitor or tantalum capacitor)</td></tr> </table>	No	Value	C1、C2	100pF	C3、C6	100pF	C4、C7	1000pF	C5、C8	>10uF(electrolytic capacitor or tantalum capacitor)
No	Value										
C1、C2	100pF										
C3、C6	100pF										
C4、C7	1000pF										
C5、C8	>10uF(electrolytic capacitor or tantalum capacitor)										

Note:

- (1) This product is a pre-matched tube, and the input and output impedance values are 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.