

Performance

- Technology: 0.5um Power HEMT
- Frequency: 0.9~2.0GHz
- Typical Pout : 400W
- Typical Gain: 13dB
- Typical PAE: 50%
- Bias: 48V/-5V
- Package: Metal Ceramic

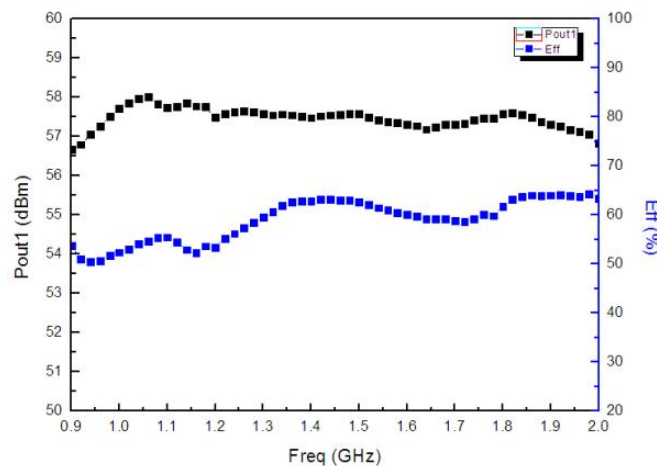


Electrical Specifications (TA=25°C,Vd=48V,Vg=-5V,F: 0.9~2.0GHz,PL=5us,D.C=5%,Interval=100MHz,
Max allowed pulse width 100us, duty cycle 10%)

Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	400	-	W
Gp	Power Gain	-	13	-	dB
η_{add}	Power Added Efficiency	-	50	-	%
ΔGp	Gain Flatness	-0.8	-	± 0.8	dB

Test Curves

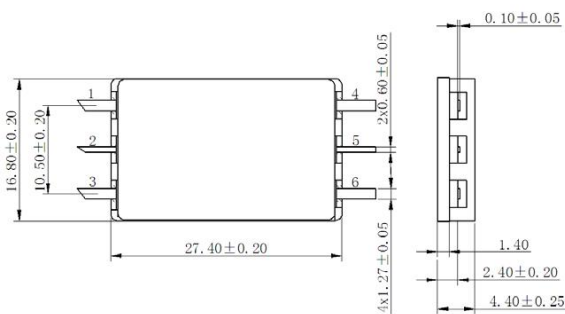
Pout、Eff&Freq.



Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	60V	
Vg	Grid Voltage	-7V	
Tch	Channel Temperature	175°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	Pad Definition												
 Technical drawing of a GaN transistor package showing top and side views with dimensions. Top View Dimensions: - Overall width: 16.80 ± 0.20 - Distance from left edge to pin 1: 10.50 ± 0.20 - Overall length: 27.40 ± 0.20 - Distance from bottom edge to pin 6: $4 \times 1.27 \pm 0.05$ - Pin pitch (distance between pins 1, 2, 3): $2 \times 0.60 \pm 0.05$ Side View Dimensions: - Pin 1 height: 0.10 ± 0.05 - Pin 2 height: 1.40 - Pin 3 height: 2.40 ± 0.20 - Pin 4 height: 4.40 ± 0.25	<table><tr><th>No</th><th>Function</th><th>No</th><th>Function</th></tr><tr><td>1、3</td><td>Vg</td><td>4、6</td><td>Vd</td></tr><tr><td>2</td><td>RFin</td><td>5</td><td>RFout</td></tr></table>	No	Function	No	Function	1、3	Vg	4、6	Vd	2	RFin	5	RFout
No	Function	No	Function										
1、3	Vg	4、6	Vd										
2	RFin	5	RFout										

Application Circuit

The diagram shows a GaN transistor with pins 1, 2, 3, 4, 5, and 6. Pin 1 is connected to Vg, pin 2 to IN, pin 3 to Vg, pin 4 to Vd, pin 5 to OUT, and pin 6 to Vd. Capacitors C1, C2, and C3 are connected between Vg and ground. Capacitors C4, C5, and C6 are connected between Vd and ground. Capacitor C7 is connected between IN and OUT.

Symbol	Value
C1	100pF
C2	1000pF
C3	47uF
C4	100pF
C5	1000pF
C6	200uF
C7	20pF

Note:

- (1) The typical packaging form is JF06F033 tube shell packaging, without flange structure;
- (2) Connect the circuit according to the diagram, pay attention to anti-static, and ensure good grounding and heat dissipation when using power devices;
- (3) In order to ensure good performance of the power module, the capacitance values of the power filter and energy storage capacitor should be reasonably selected according to the modulation method during pulse operation.