

Key Features

Frequency	0.3-6 GHz	Dynamic current	2.5A
Typical Small Signal Gain	33dB	Typical Output	46dBm@48V
Power Gain	20dB	Power Added Efficiency	25%
VSWR	2.0	Offset	48V, -2V (Typ)
Static current	1.4A	Dimension	5.2mm×3.8mm×0.08mm

Description

ER0306-P46 is a high performance 0.3-6 GHz GaN amplifier, $V_d = 48V$, $V_g = -2V$, can provide 46dBm output power within 0.3-6GHz, power added efficiency is 25%, typical I_d is 2.5A.

Maximum Ratings (TA=25°C)

Symbol	Parameter	Value	Mark
Vd	Drain Voltage	60V	
Id	Drain current	3.5A	
Vg	Gate Voltage	-10V	
Ig	Gate current	20mA	
Pd	Power dissipation	170W	
Pin	Input Power	27dBm	
Tch	Operation temperature	175°C	
Tm	Mount temperature	310°C	1min, N ₂ protection
Tstg	Storage Temperature	-55 ~ 150°C	

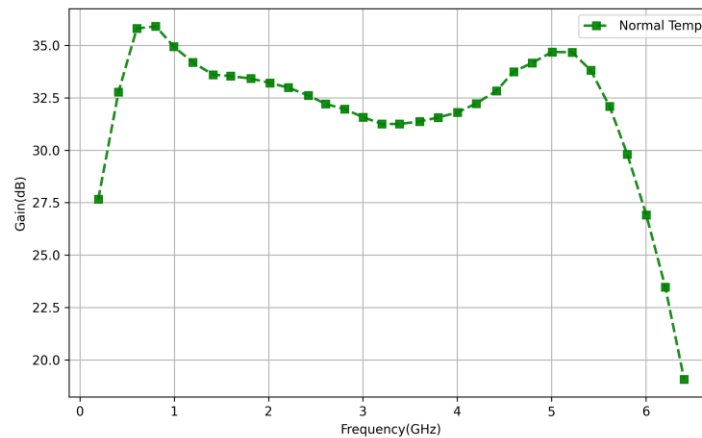
Specifications (TA=25°C)

Symbol	Parameter	Test conditions	Values			Unit
			Min	Typ	Max	
G	Small Signal Gain	Vd= 48V Vg= -2.0A 0.3-6GHz CW	27	33	36	dB
Gp	Power Gain		17	20	21.5	dB
Pout	Saturated Output Power		42	46	46.5	dBm
PAE	Power Added Efficiency		12	25	44	%
Id	Dynamic Current		2.1	2.5	2.8	A
VSWR in	Small Signal Input VSWR		1.5	2.0	2.5	-

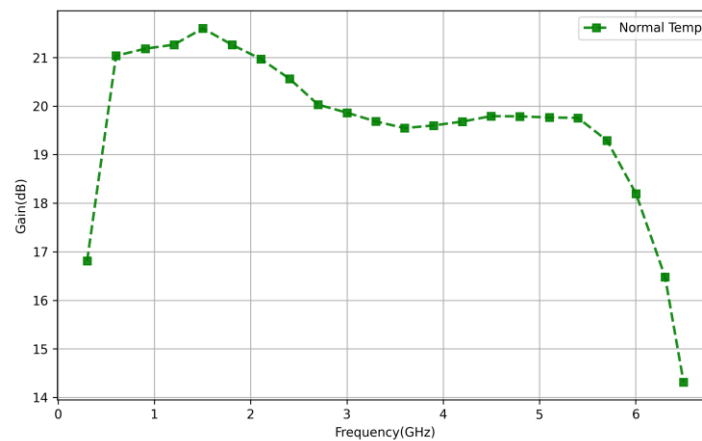
Typical Performances

$V_g = -2.0V$, $P_{in} = 25dBm/-15dBm$, CW

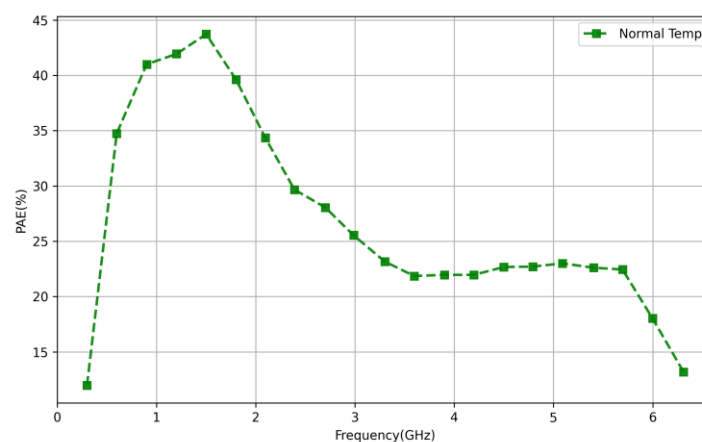
Small Signal Gain



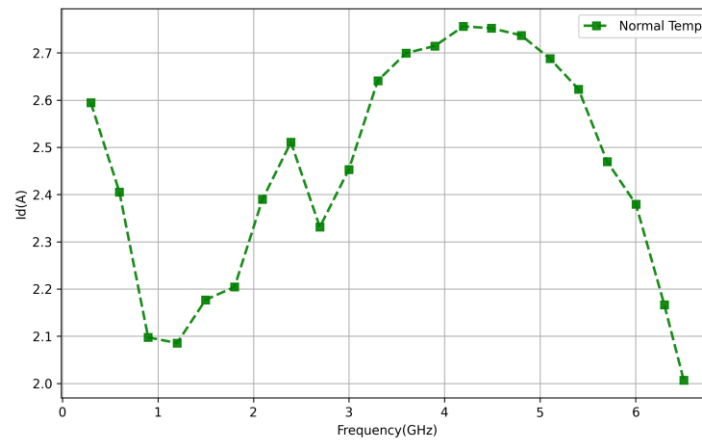
Power Gain



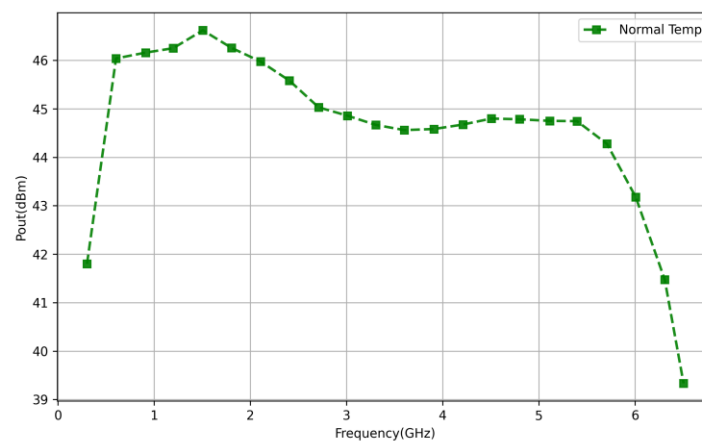
Power Added Efficiency



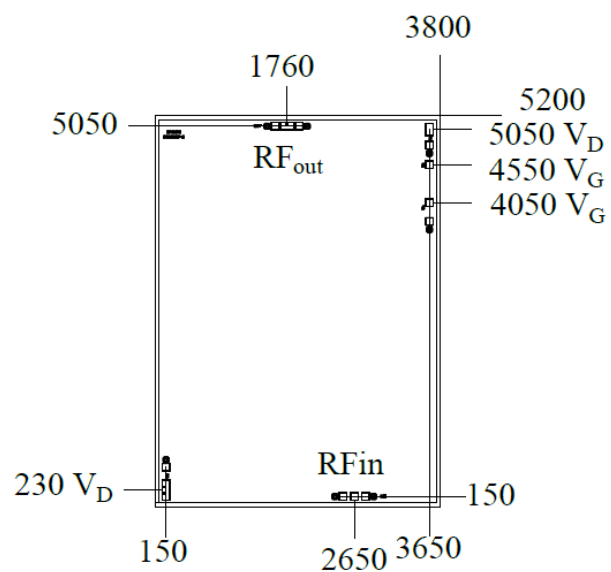
Dynamic Id



Output Power



Dimension (Unit: um)



Assembly Diagram

