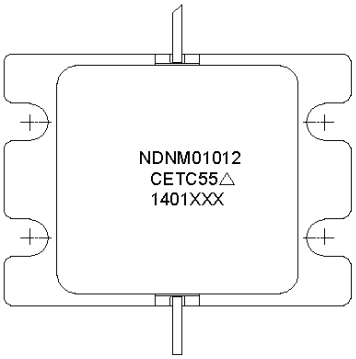
NDNM01012

2.7-3.5GHz GaN Transistors

► *Features*

- Frequency range: 2.7-3.5 GHz
- Gain: 10dB
- Psat: 52dBm
- PAE: 50%
- Operating Voltage: 32 V
- Match Type: Internally Matched（50Ohm）
- Dimensions: 24 mm×17.4mm×5.5mm



► *Applications*

- Military Radar and Civilian Radar
- Professional and Military Radio Commutations
- Wideband and Narrowband Amplifiers

► *General Description*

The NDNM01012 is a 150W GaN on SiC HEMT and internally matched for ease of use. The device is constructed with NEDI's proven 0.25um process. The GaN internally matched transistor operates from 2.7GHz to 3.5GHz and typically provides 52dBm output power, 10dB gain and 45% of Power Added Efficiency(PAE). The NDNM01012 is ideally suited for many applications including communication systems, civil and military radar amplifiers and electronic warfare.

► *Absolute Maximum Ratings*

Symbol	Parameter	Value	Notes
Vd	Drain Bias Voltage	+40V	
Vg	Gate Bias Voltage	-10	
Tch	Channel Temperature	225 °C	
Tstg	Storage Temperature	-55～150 °C	
Ig	Gate Current	20mA	

Any of the stresses above the listed ratings may cause permanent damage.

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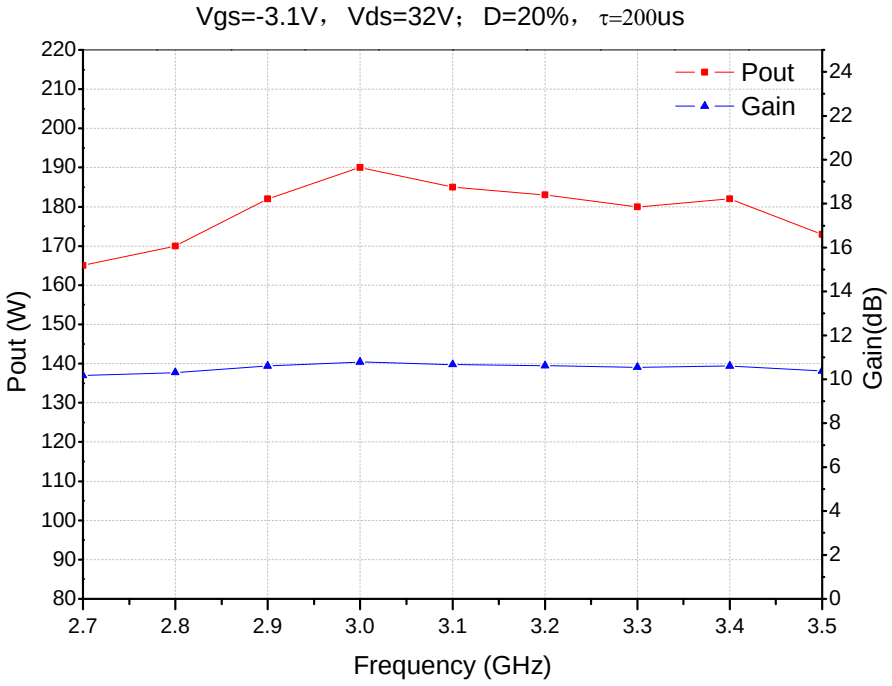
► *Specifications (T_A=25 °C)*

Symbol	Parameter	Conditions	Value			Units
			Min	Typical	Max	
Pout	Output Power	Vd=32V,	51.8	52		dBm
G	Linear Gain	-4.5V≤Vg≤-1.5	10	10		dB
η	PAE	Freq：2.7-3.5GHz		50		%

► *Typical Performances (T_A=25 °C)*



(a)

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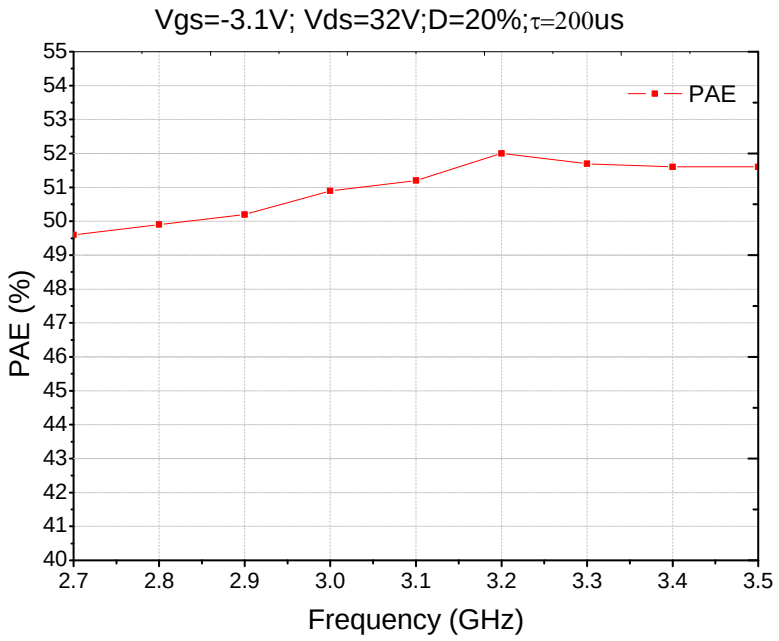

(b)

Fig.1 The NDNM01012 Typical Performances. (a) Output Power and Gain, (b) PAE

► *Product Dimensions*

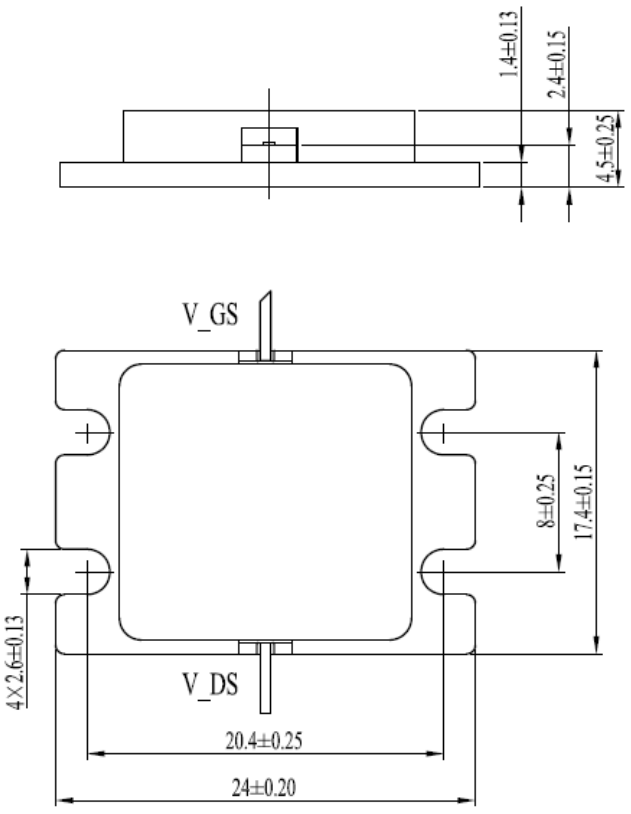

Fig.2 Metal Package Dimensions (all dimensions in millimeters)

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► *Assembly Diagram*

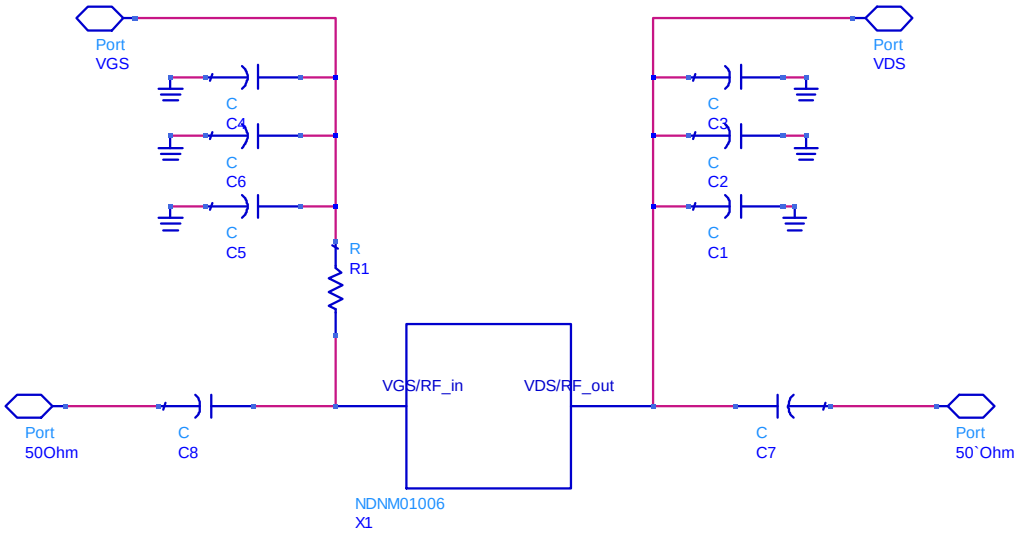

Fig.3 Application Circuit

Bill of Materials

Reference Des	Value
R1	10 Ohm
C1	100 pF
C2	1000 pF
C3	47 uF
C4	100 pF
C5	1000 pF
C6	10 uF
C7	20 pF
C8	20 pF

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