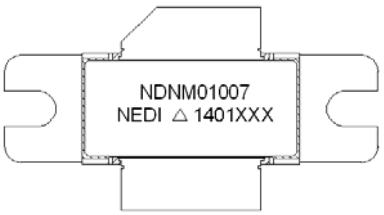
NDNM01007

1.2-1.3GHz GaN Transistors

► *Features*

- Frequency range: 1.2-1.3 GHz
- Gain: 13dB
- Psat: 54dBm
- PAE: 60%
- Operating Voltage: 28 V
- Match Type: Pre-Matched
- Dimensions: 34 mm×9.8mm×2.4mm



► *Applications*

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

► *General Description*

The NDNM01007 is a 250W 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 1.2GHz to 1.3GHz and typically provides 54dBm output power, 13dB gain and 60% of Power Added Efficiency. The NDNM01007 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	+36V	
Vg	Gate Bias Voltage	-10	
Tch	Channel Temperature	225 °C	
Tstg	Storage Temperature	-55～150 °C	
Ig	Gate Current	20mA	

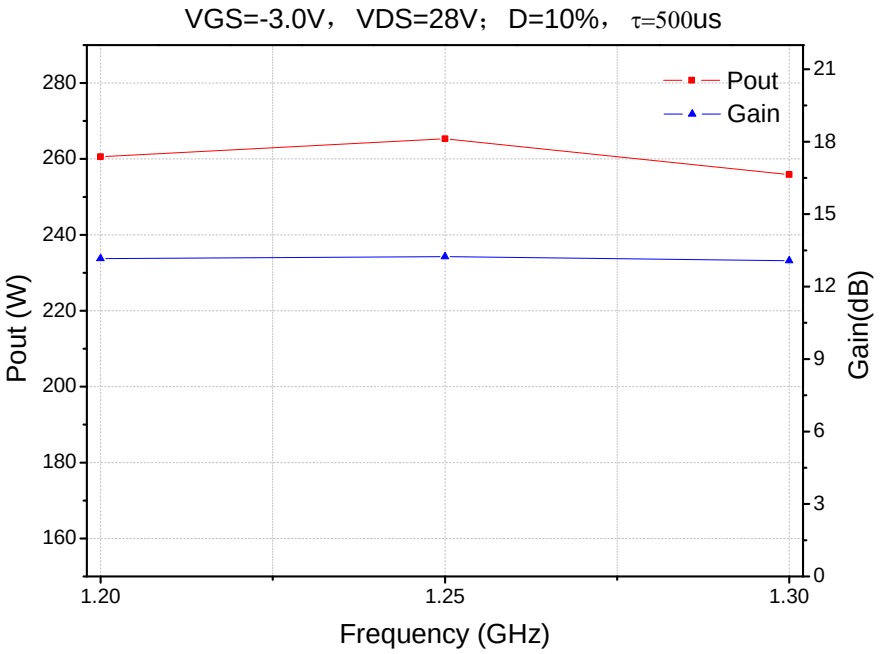
Any of the stresses above the listed ratings may cause permanent damage.

NEDI Technology Co., Ltd
Tel: +86-25-86858582 / +86-25-86858740
Fax: +86-25-86858580 E-mail: sales@neditek.com
Add: No. 524 Zhongshan East Road, Nanjing, China

► *Specifications (T_A=25 °C)*

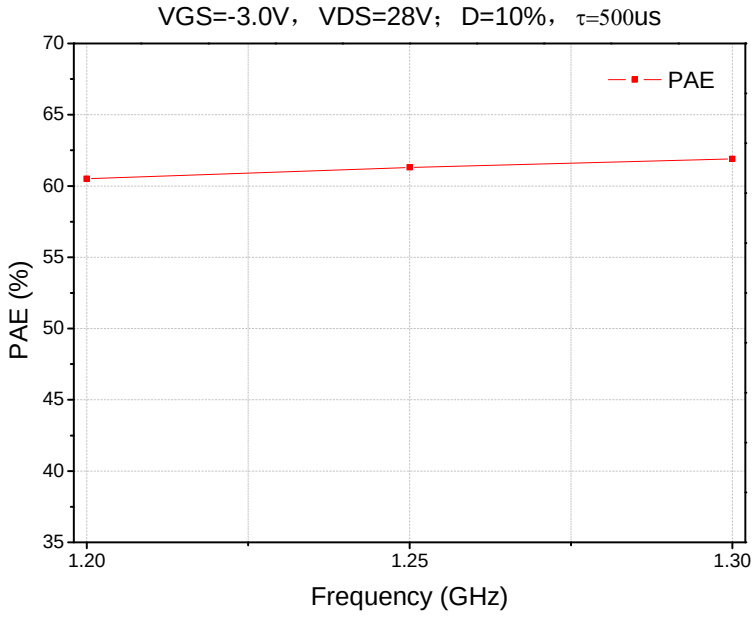
Symbol	Parameter	Conditions	Value			Units
			Min	Typical	Max	
Pout	Output Power	Vd=28V,	54			dBm
G	Linear Gain	-4.5V≤Vg≤-1.5	13			dB
η	Power Added Efficiency	Freq：1.2-1.3GHz		60		%

► *Typical Performances (T_A=25 °C)*



(a)

NEDI Technology Co., Ltd
Tel：+86-25-86858582 / +86-25-86858740
Fax: +86-25-86858580 E-mail: sales@neditek.com
Add: No. 524 Zhongshan East Road, Nanjing, China



(b)

Fig.1 The NDNM01007 Typical Performances. (a) Output Power and Gain, (b) PAE.

► *Product Dimensions*

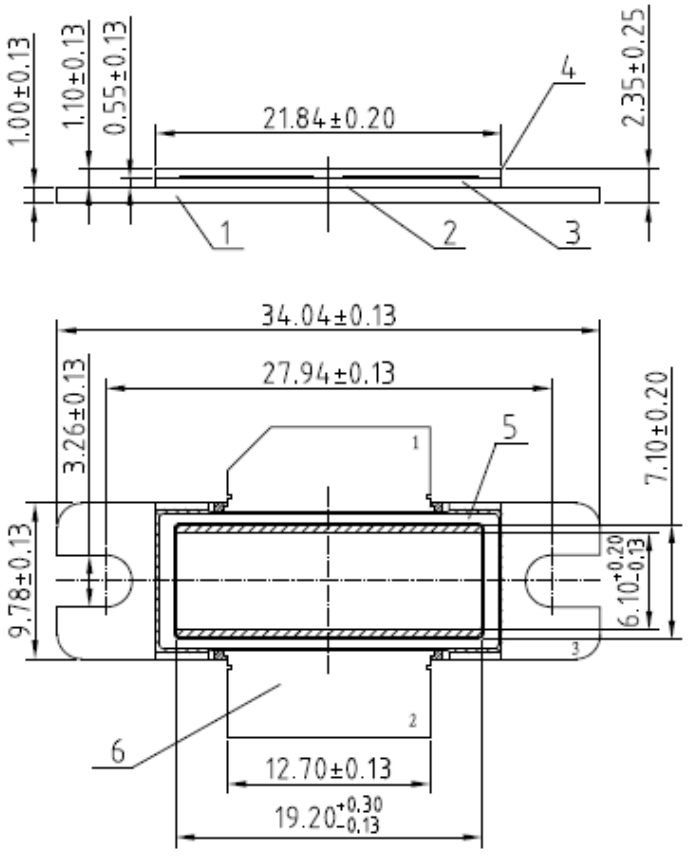


Fig.2Metal Package Dimensions (all dimensions in millimeters)

NEDI Technology Co., Ltd
Tel: +86-25-86858582 / +86-25-86858740
Fax: +86-25-86858580 E-mail: sales@neditek.com
Add: No. 524 Zhongshan East Road, Nanjing, China

► *Assembly Diagram*

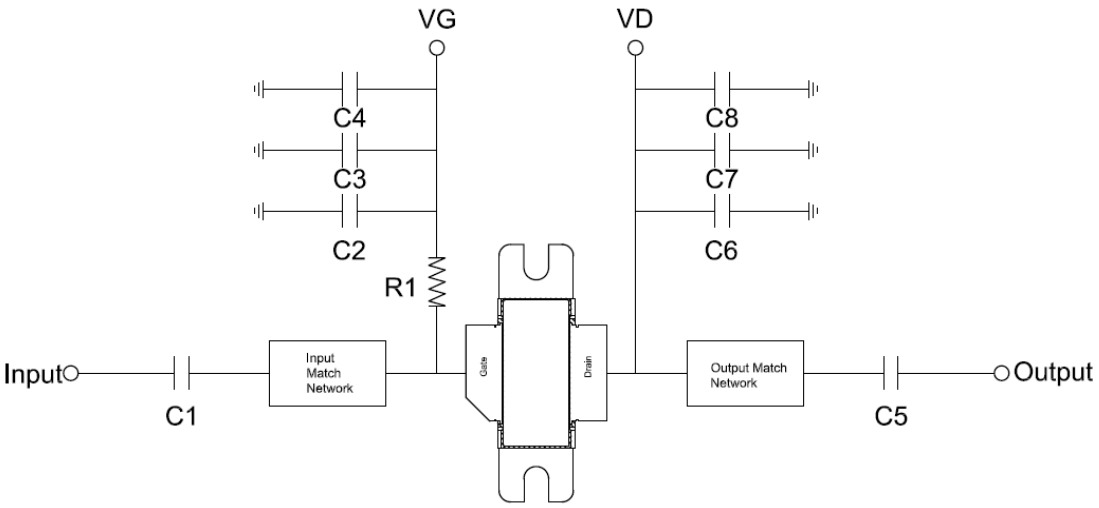


Fig.3 Application Circuit

Bill of Materials

Reference Des	Value
R1	15 Ohm
C1	20 pF
C2	100 pF
C3	1000 pF
C4	10 uF
C5	20 pF
C6	100 pF
C7	1000 pF
C8	10 uF

NEDI Technology Co., Ltd
Tel: +86-25-86858582 / +86-25-86858740
Fax: +86-25-86858580 E-mail: sales@neditek.com
Add: No. 524 Zhongshan East Road, Nanjing, China