

## Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 2.45GHz
- Typical Pout : 50dBm(CW)
- Typical Gain: 13dB
- Typical PAE: 60%
- Bias: 28V/-4~-2V
- Impedance: 50Ω
- Package: Metal Ceramic

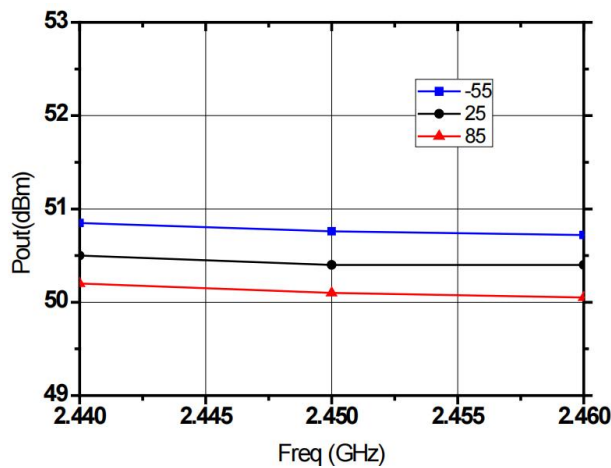


## Electrical Specifications (T<sub>A</sub>=25°C, V<sub>d</sub>=28V, V<sub>g</sub>= -4~-2V, F: 2.45GHz)

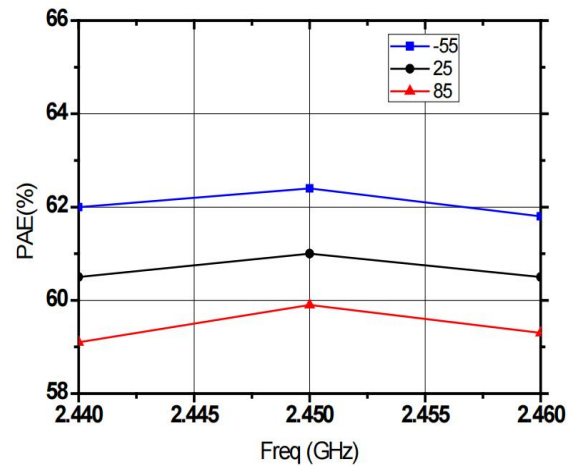
| Symbol           | Parameter              | Min  | Typical | Max  | Unit |
|------------------|------------------------|------|---------|------|------|
| Pout             | Output Power           | -    | 50      | -    | dBm  |
| Gp               | Power Gain             | -    | 13      | -    | dB   |
| η <sub>add</sub> | Power Added Efficiency | -    | 60      | -    | %    |
| ΔGp              | Gain Flatness          | -0.8 | -       | +0.8 | dB   |
| Rth              | Thermal Resistance     | -    | -       | 1.2  | °C/W |

## Test Curves

Pout&Freq. @ Different Temp.



PAE&Freq. @ Different Temp.

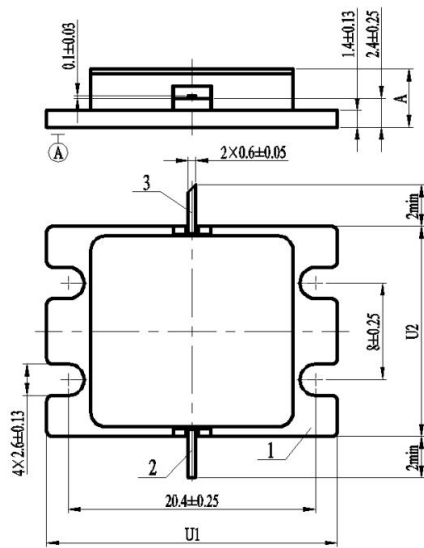


### Absolute Max Ratings (T<sub>A</sub>=25°C)

| Symbol | Parameter            | Value    | Remark               |
|--------|----------------------|----------|----------------------|
| Vd     | Drain Voltage        | 36V      |                      |
| Vg     | Grid Voltage         | -5V      |                      |
| Pd     | DC Dissipation       | 100W     | 25℃                  |
| Tch    | Channel Temperature  | 225℃     | <b>【1】</b>           |
| Tm     | Mounting Temperature | 300℃     | 1 min, N2 Protection |
| Tstg   | Storage Temperature  | -55~175℃ |                      |

**[1]** Exceeding any one or combination of these limits may cause permanent damage.

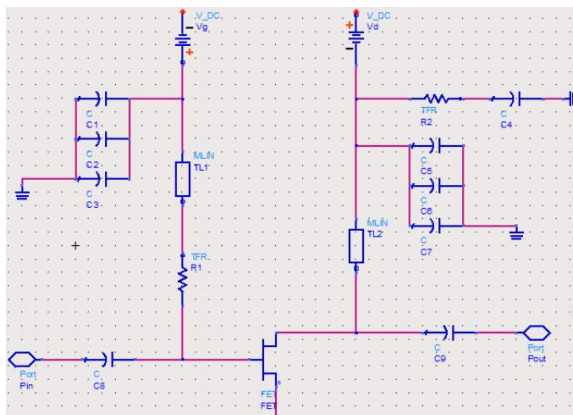
## Outline Drawing



## Dimension Symbol

| Symbol | Value (unit: mm) |       |
|--------|------------------|-------|
|        | Min.             | Max.  |
| U1     | 23.80            | 24.20 |
| U2     | 17.20            | 17.60 |
| A      | -                | 5.2   |

## Application Circuit



| Parameter                | Symbol                   | Value       | Unit     |
|--------------------------|--------------------------|-------------|----------|
| Filter capacitor         | C1,C2,C3,<br>C4,C5,C6,C7 | 1000        | pF       |
| DC isolation capacitance | C8,C9                    | 4.7         | pF       |
| Stabilizing resistance   | R1                       | 15          | $\Omega$ |
| Resistance               | R2                       | 50          | $\Omega$ |
| Microstrip line          | TL1,TL2                  | $\lambda/4$ | -        |

**Note:**

- (1) This product is an internal matching tube, with input and output impedance values of 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.