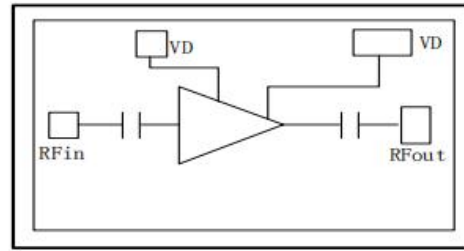


## Performance

- Frequency: 6~18GHz
- Typical Signal Gain: 23dB
- Typical Pout: 25dBm
- Bias: 28V (Self Bias)
- Mode: CW
- Technology: 0.20um HEMT
- Size: 2.4mm\*1.45mm\*0.08mm

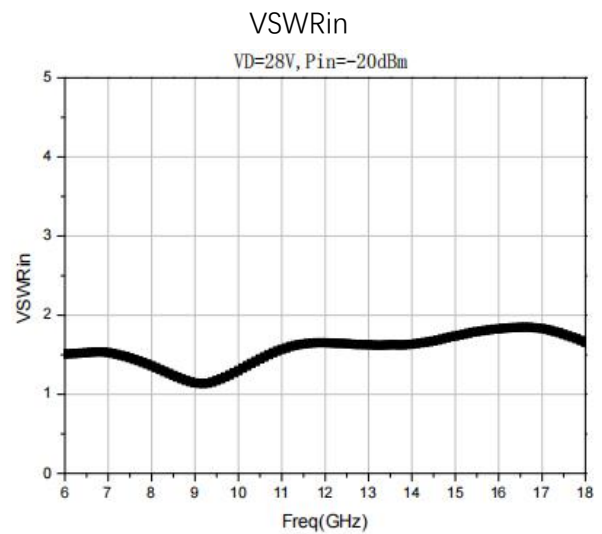
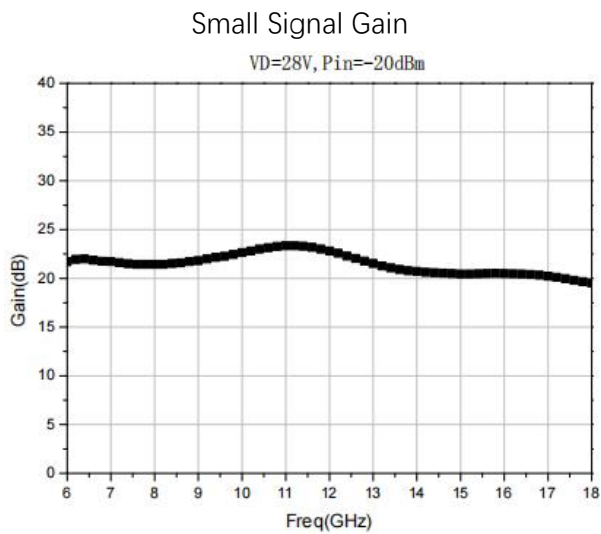
## Function Diagram



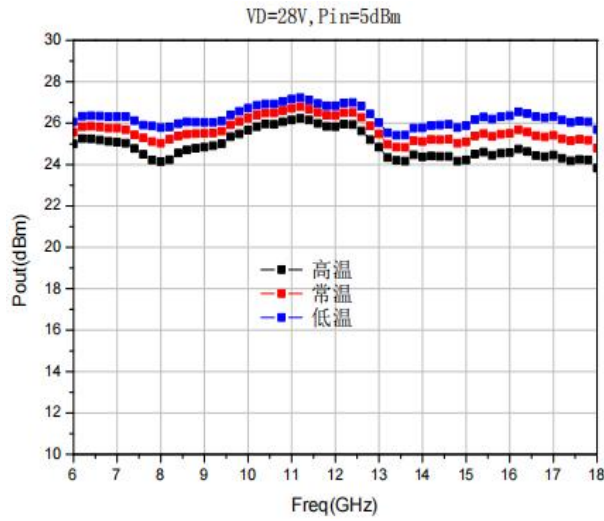
## Electrical Specifications (TA=25°C, Vd=28V, Self Bias, F: 6~18GHz, CW)

| Symbol | Parameter         | Min | Typical | Max | Unit |
|--------|-------------------|-----|---------|-----|------|
| G      | Small Signal Gain | -   | 23      | -   | dB   |
| Gp     | Power Gain        | -   | 20      | -   | dB   |
| Pout   | Saturated Power   | -   | 25      | -   | dBm  |
| Id     | Operating Current | -   | 0.15    | -   | A    |

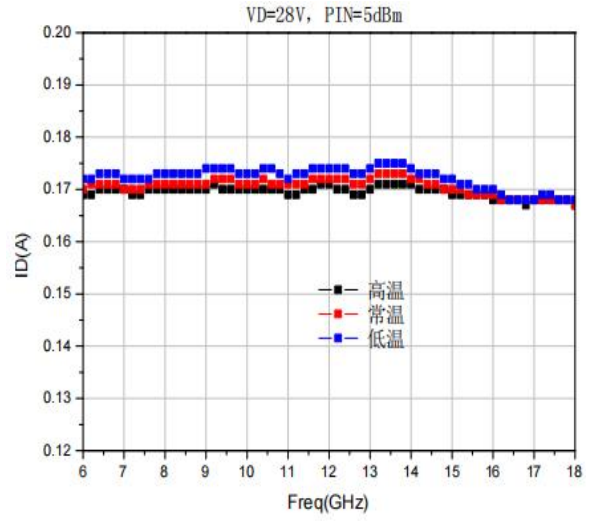
## Test Curves



Pout@ Different Temp.



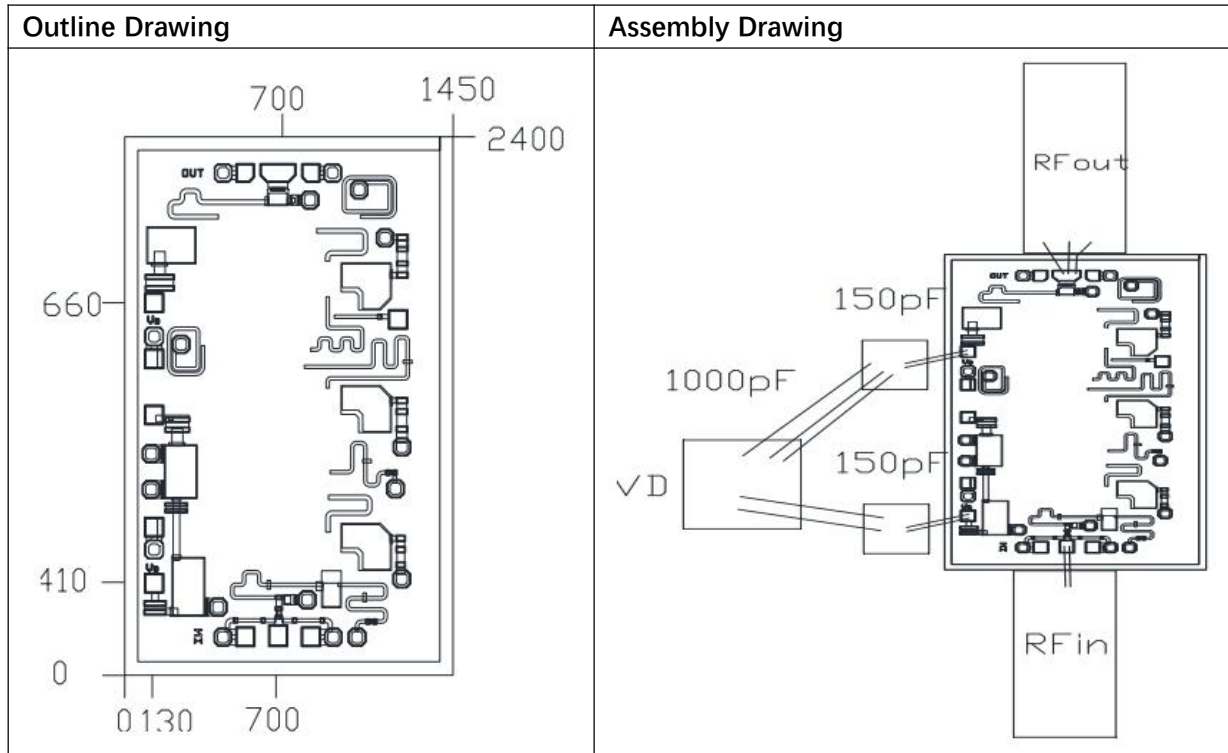
Id@ Different Temp.



#### Absolute Max Ratings (TA=25°C)

| Symbol | Parameter            | Value     | Remark              |
|--------|----------------------|-----------|---------------------|
| Vd     | Drain Voltage        | 30V       |                     |
| Id     | Drain Current        | 0.2A      |                     |
| Pd     | DC Power             | 6W        |                     |
| Pin    | Input Power          | 13dBm     |                     |
| Tch    | Channel Temperature  | 180°C     |                     |
| Tm     | Mounting Temperature | 300°C     | 1min, N2 Protection |
| Tstg   | Storage Temperature  | -55~175°C |                     |

Exceeding any one or combination of these limits may cause permanent damage.



#### Pads Definition

| Pad         | Description                                                                                                     | Equivalent Circuit |
|-------------|-----------------------------------------------------------------------------------------------------------------|--------------------|
| RFin        | RF Signal input, connect to 50ohm system, block capacitor is needed if there's external DC applied on this pad. |                    |
| RFout       | RF Signal output, connect to 50ohm system, no need block capacitor.                                             |                    |
| VG          | Amp gate bias, external 150pF, 1000pF capacitor is needed                                                       |                    |
| VD1、VD2、VD3 | Amp drain bias, external 150pF, 1000pF capacitor is needed                                                      |                    |
| GND         | Bottom must connect to RF and DC ground                                                                         |                    |