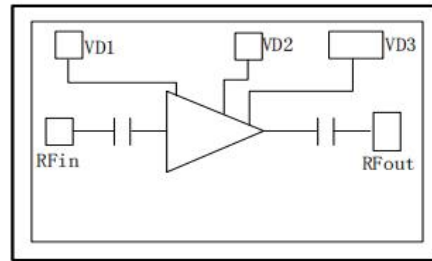


Performance

- Frequency: 8~18GHz
- Typical Signal Gain: 29dB
- Typical Pout: 30dBm@28V
- Technology: 0.20um HEMT
- Typical Static Current: 0.2A
- Bias: 28V, Self Bias
- Size: 2.4*1.45mm*0.08mm

Function Diagram

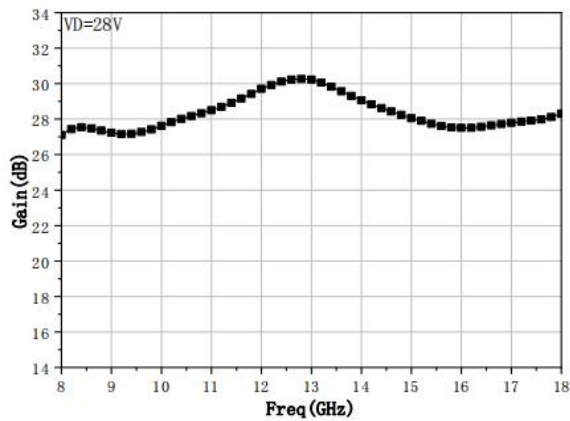


Electrical Specifications (TA=25°C, Vd=28V, Idq=0.2A, F: 8~18GHz, PL)

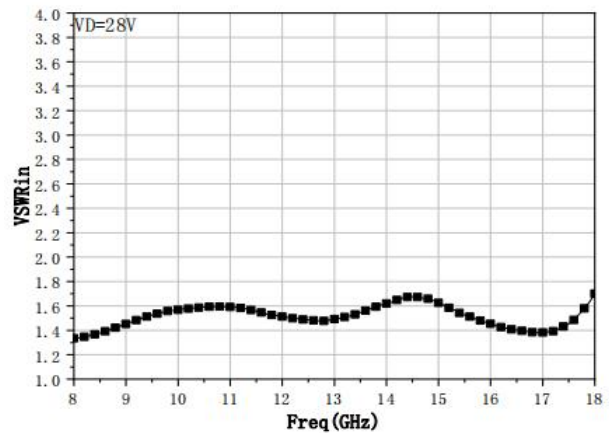
| Symbol | Parameter | Min | Typical | Max | Unit |
|--------|-------------------|-----|---------|-----|------|
| G | Small Signal Gain | - | 29 | - | dB |
| Gp | Power Gain | - | 26 | - | dB |
| Pout | Saturated Power | - | 30 | - | dBm |
| Id | Dynamic Current | - | 0.3 | - | A |

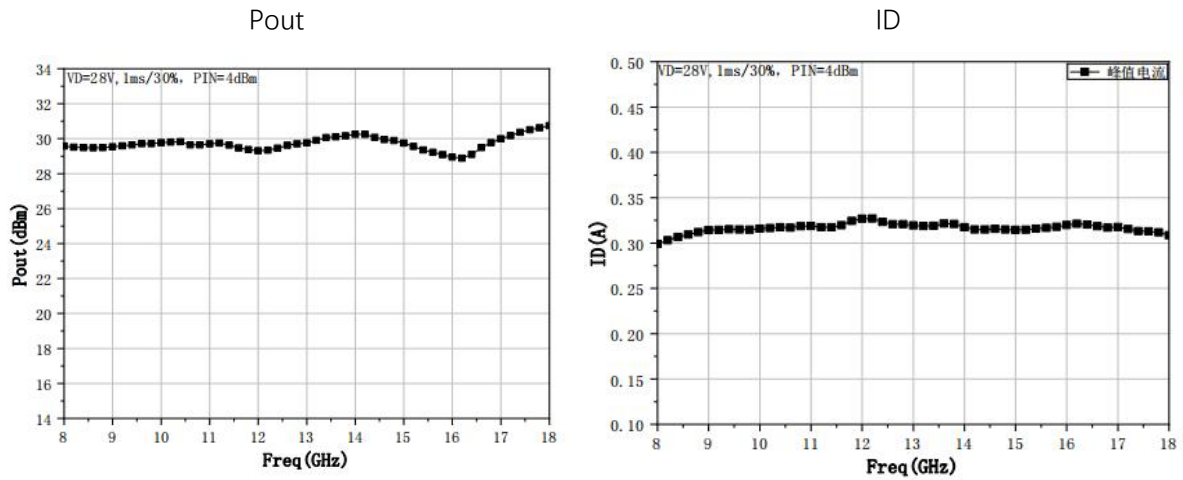
Test Curves

Small Signal Gain



VSWRin

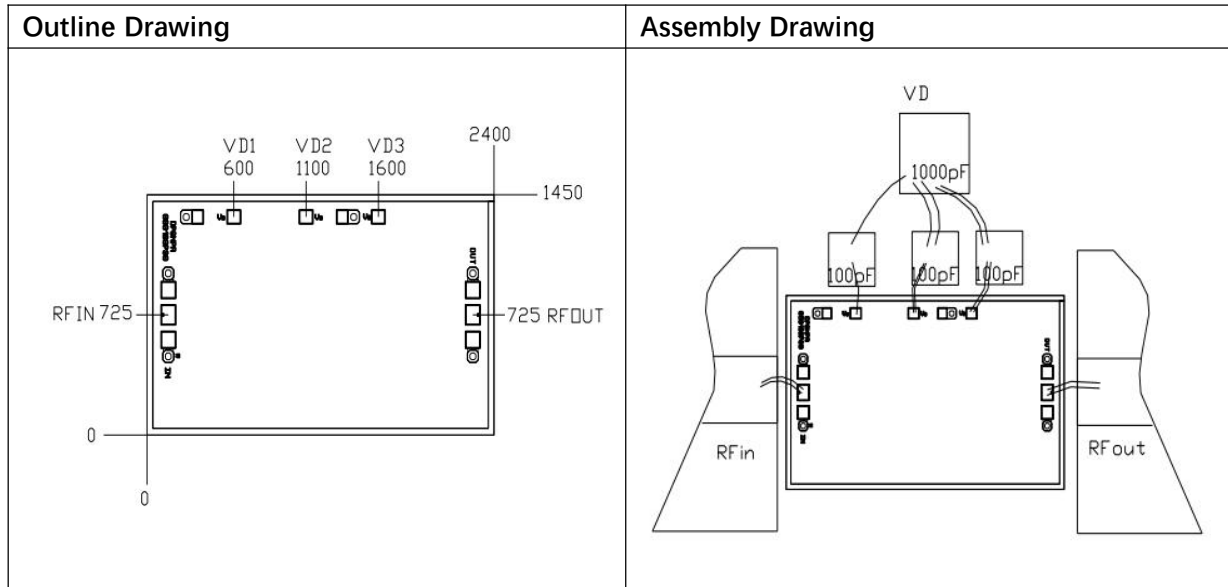




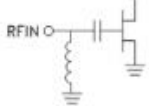

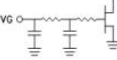

Absolute Max Ratings (TA=25°C)

| Symbol | Parameter | Value | Remark |
|--------|----------------------|-----------|----------------------|
| Vd | Drain Voltage | 32V | |
| Id | Drain Current | 1.0A | |
| Pd | DC Power | 20W | |
| Pin | Input Power | 14dBm | |
| Tch | Channel Temperature | 225°C | |
| Tm | Mounting Temperature | 310°C | 1 min, 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 100pF, 1000pF capacitor is needed |  |
| VD1、VD2、VD3 | Amp drain bias, external 100pF, 1000pF capacitor is needed |  |
| GND | Bottom must connect to RF and DC ground | |