

FEATURES

- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER
P1dB= 33.5dBm at 14.5GHz to 15.0GHz
- HIGH GAIN
G1dB= 6.0dB at 14.5GHz to 15.0GHz
- HERMETICALLY SEALED PACKAGE



RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

| CHARACTERISTICS | SYMBOL | CONDITIONS | UNIT | MIN. | TYP. | MAX. |
|--|-----------------|---|------|------|------|------|
| Output Power at 1dB Gain Compression Point | P1dB | VDS= 9V IDSset= 1.0A f= 14.5 to 15.0GHz | dBm | 32.5 | 33.5 | — |
| Power Gain at 1dB Gain Compression Point | G1dB | | dB | 5.0 | 6.0 | — |
| Drain Current | IDS | | A | — | 0.85 | 1.1 |
| Power Added Efficiency | η_{add} | | % | — | 22 | — |
| Channel Temperature Rise | ΔT_{ch} | (VDS X IDS + Pin – P1dB) X Rth(c-c) | °C | — | — | 60 |

Recommended Gate Resistance(Rg): 100 Ω

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

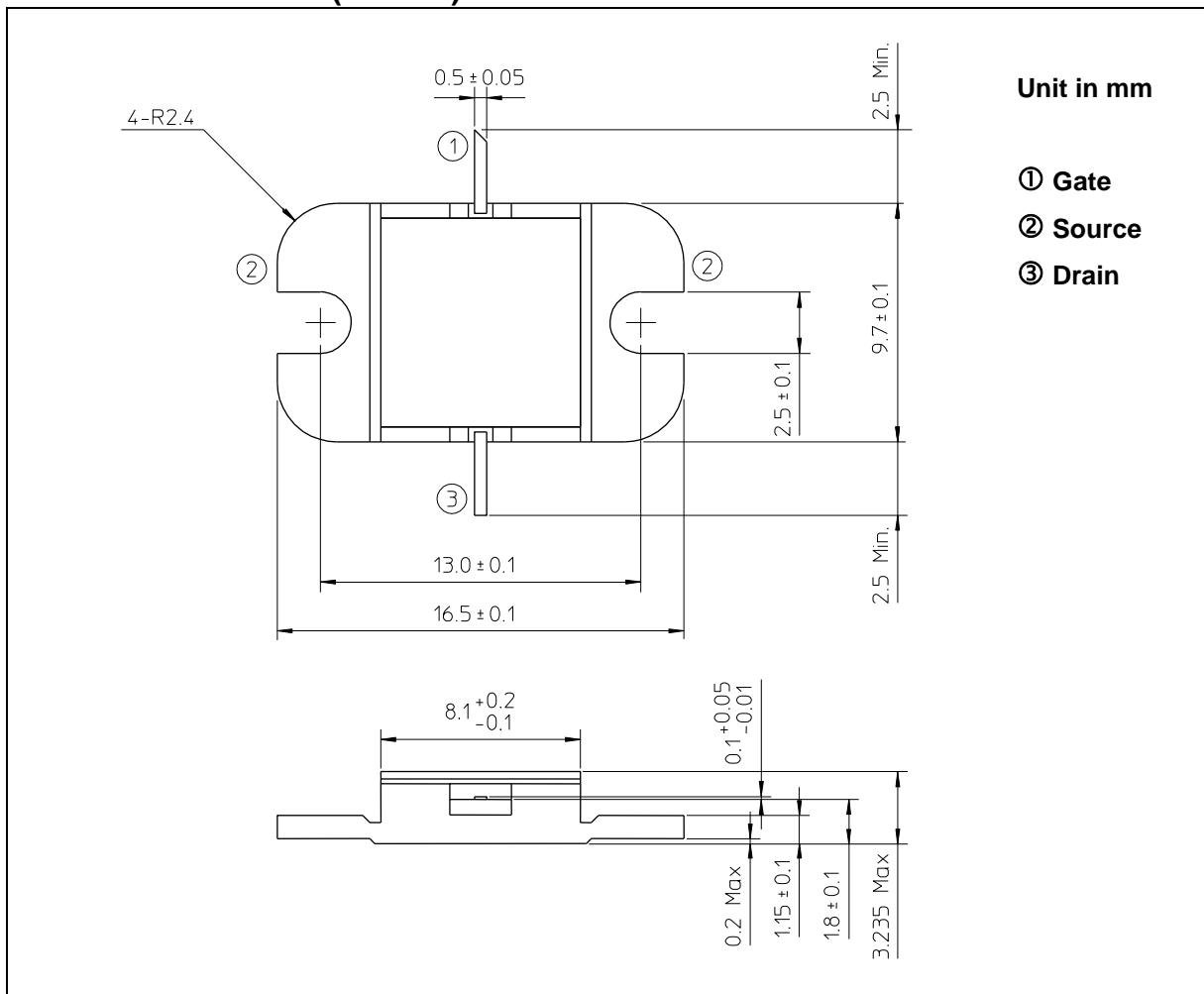
| CHARACTERISTICS | SYMBOL | CONDITIONS | UNIT | MIN. | TYP. | MAX. |
|-------------------------------|----------|----------------------|------|------|------|------|
| Transconductance | gm | VDS= 3V IDS= 1.0A | S | — | 0.6 | — |
| Pinch-off Voltage | VGSoff | VDS= 3V IDS= 30mA | V | -2.0 | -3.0 | -5.0 |
| Saturated Drain Current | IDSS | VDS= 3V VGS= 0V | A | — | 2.0 | 2.6 |
| Gate-Source Breakdown Voltage | VGSO | IGS= -30 μ A | V | -5 | — | — |
| Thermal Resistance | Rth(c-c) | Channel to Case | °C/W | — | 5.0 | 6.0 |

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

| CHARACTERISTICS | SYMBOL | UNIT | RATING |
|------------------------------------|--------|------|-------------|
| Drain-Source Voltage | VDS | V | 15 |
| Gate-Source Voltage | VGS | V | -5 |
| Drain Current | IDS | A | 2.6 |
| Total Power Dissipation (Tc= 25°C) | PT | W | 25 |
| Channel Temperature | Tch | °C | 175 |
| Storage Temperature | Tstg | °C | -65 to +175 |

PACKAGE OUTLINE (2-9D1B)

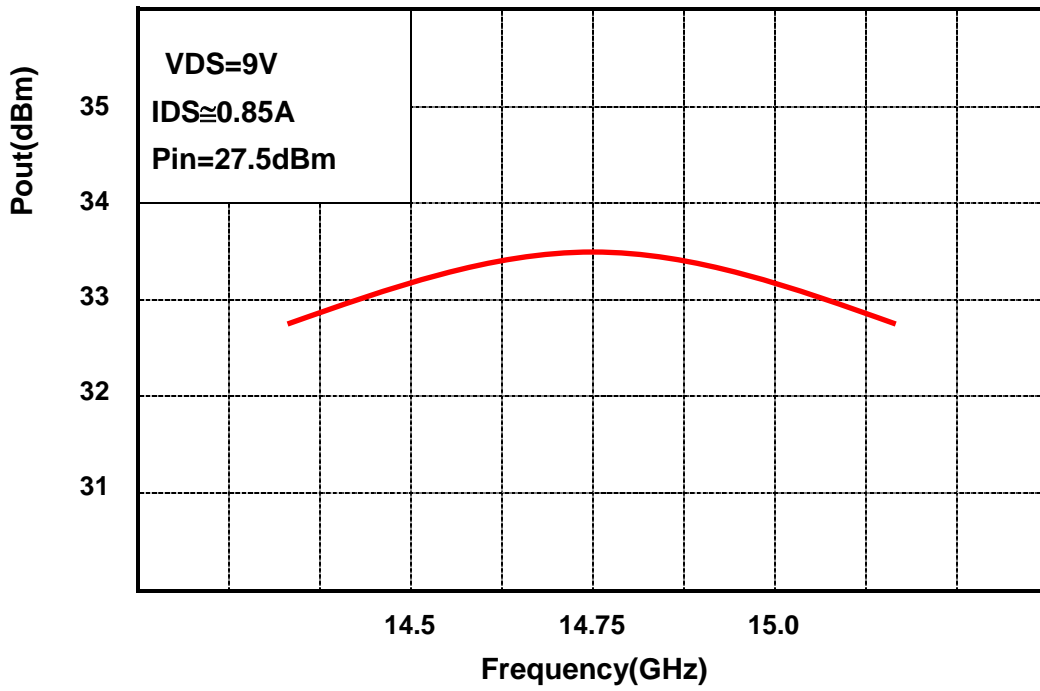


HANDLING PRECAUTIONS FOR PACKAGE MODEL

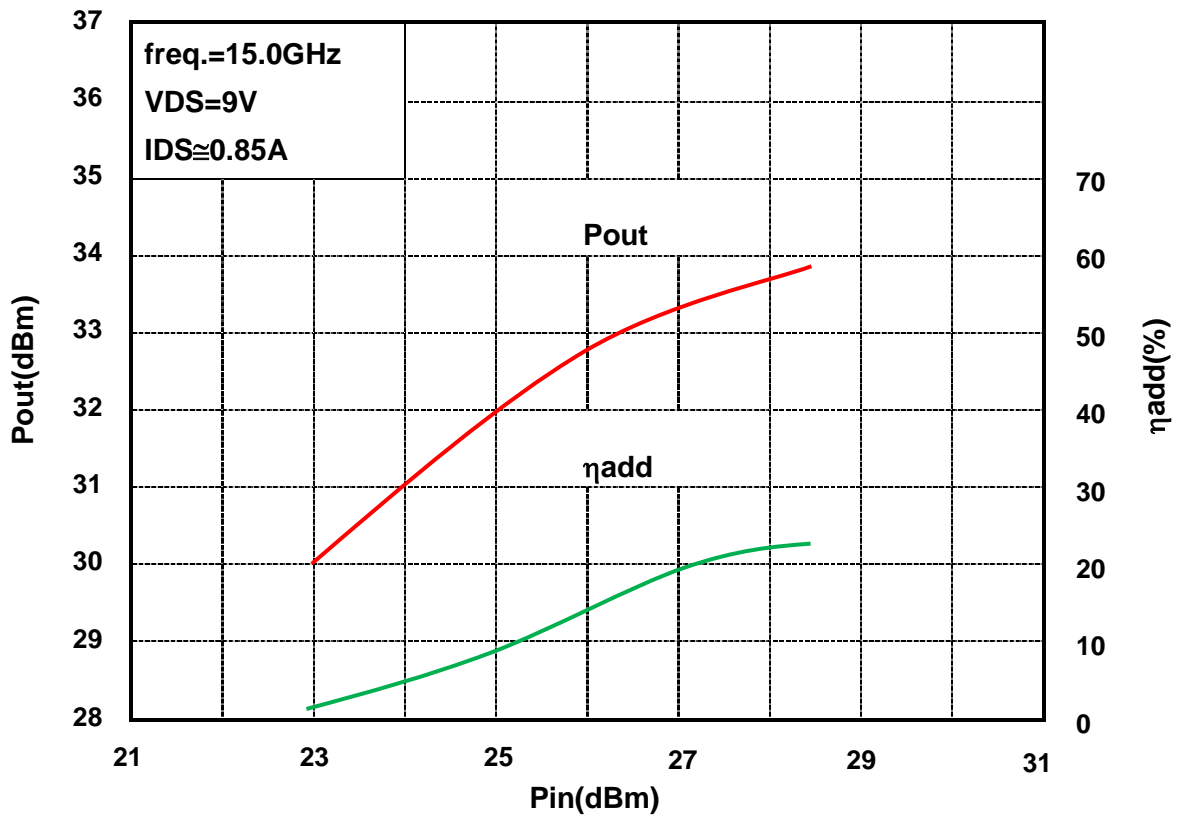
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C.

RF PERFORMANCE

Output Power (Pout) vs. Frequency



Output Power(Pout) vs. Input Power(Pin)



Power Dissipation(PT) vs. Case Temperature(Tc)

