

FEATURES

- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER
P1dB= 42.5dBm at 5.3GHz to 5.9GHz
- HIGH GAIN
G1dB= 8.5dB at 5.0GHz to 5.3GHz
- LOW INTERMODULATION DISTORTION
IM3= -45dBc at Pout= 31.5dBm
Single Carrier Level
- 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= 10V IDSset= 4.4A f = 5.3 to 5.9GHz | dBm | 41.5 | 42.5 | — |
| Power Gain at 1dB Gain Compression Point | G1dB | | dB | 7.5 | 8.5 | — |
| Drain Current | IDS1 | | A | — | 4.4 | 5.0 |
| Gain Flatness | ΔG | | dB | — | — | ±0.8 |
| Power Added Efficiency | ηadd | | % | — | 35 | — |
| 3rd Order Intermodulation Distortion | IM3 | Two Tone Test Po= 31.5dBm, Δf= 5MHz (Single Carrier Level) | dBc | -42 | -45 | — |
| Drain Current | IDS2 | | A | — | 4.4 | 5.0 |
| Channel Temperature Rise | ΔTch | (VDS X IDS + Pin - P1dB) X Rth(c-c) | °C | — | — | 80 |

Recommended Gate Resistance(Rg): 68 Ω

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

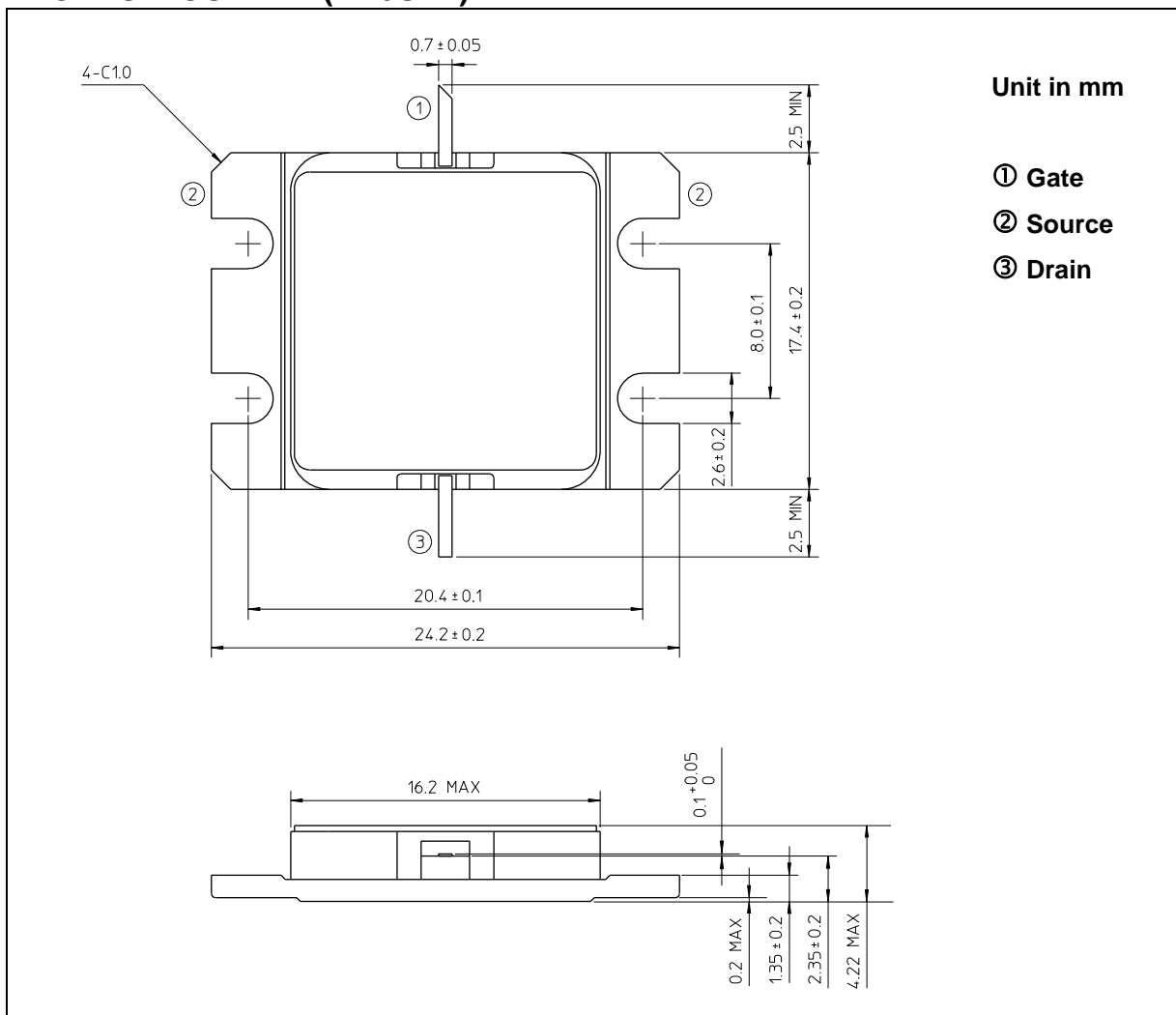
| CHARACTERISTICS | SYMBOL | CONDITIONS | UNIT | MIN. | TYP. | MAX. |
|-------------------------------|----------|----------------------|------|------|------|------|
| Transconductance | gm | VDS= 3V IDS= 6.0A | S | — | 3.6 | — |
| Pinch-off Voltage | VGSoff | VDS= 3V IDS= 60mA | V | -1.0 | -2.5 | -4.0 |
| Saturated Drain Current | IDSS | VDS= 3V VGS= 0V | A | — | 10.5 | — |
| Gate-Source Breakdown Voltage | VGSO | IGS= -200μA | V | -5 | — | — |
| Thermal Resistance | Rth(c-c) | Channel to Case | °C/W | — | 1.5 | 2.0 |

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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 | 14.0 |
| Total Power Dissipation (Tc= 25°C) | PT | W | 75 |
| Channel Temperature | Tch | °C | 175 |
| Storage Temperature | Tstg | °C | -65 to +175 |

PACKAGE OUTLINE (2-16G1B)

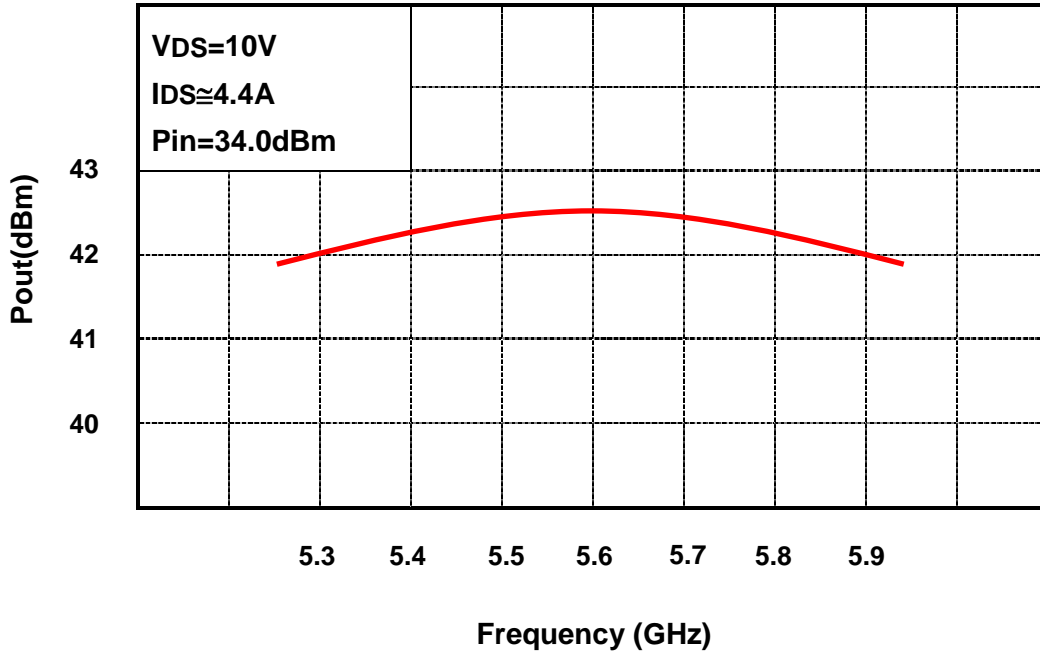


HANDLING PRECAUTIONS FOR PACKAGE MODEL

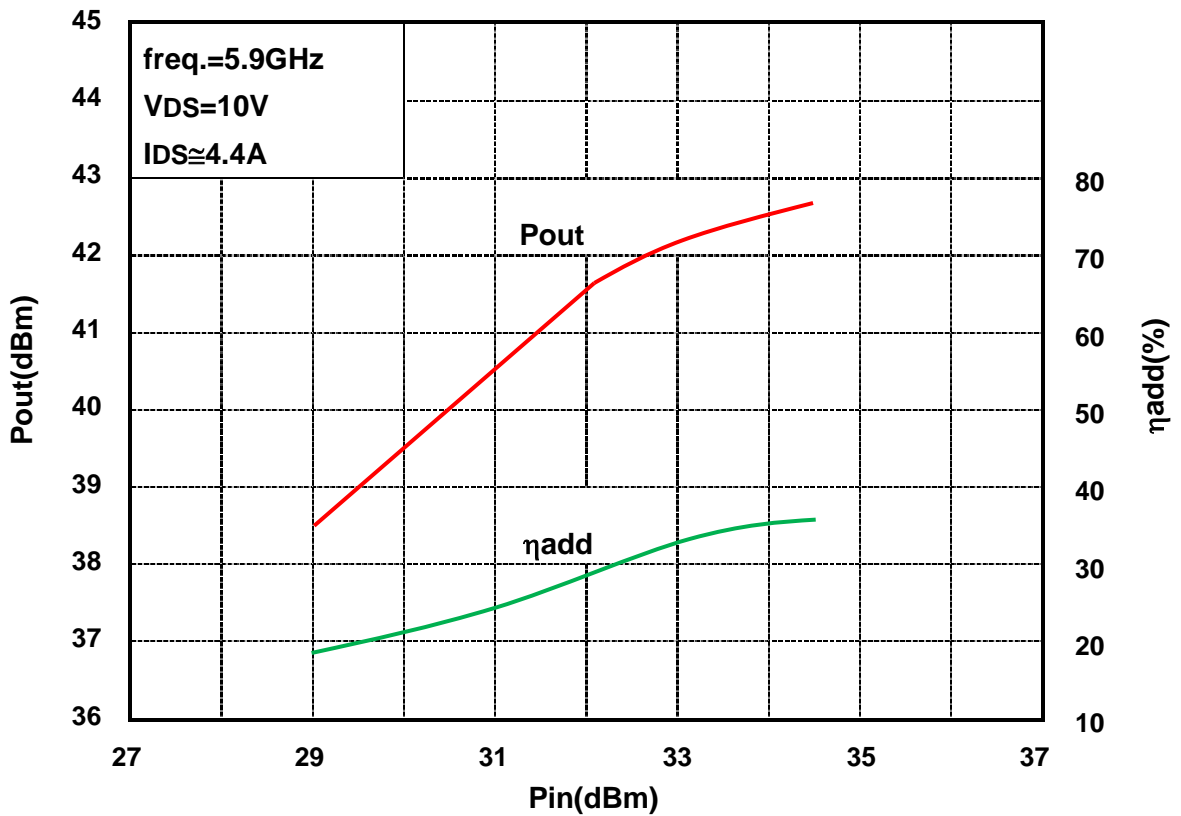
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C.

RF PERFORMANCE

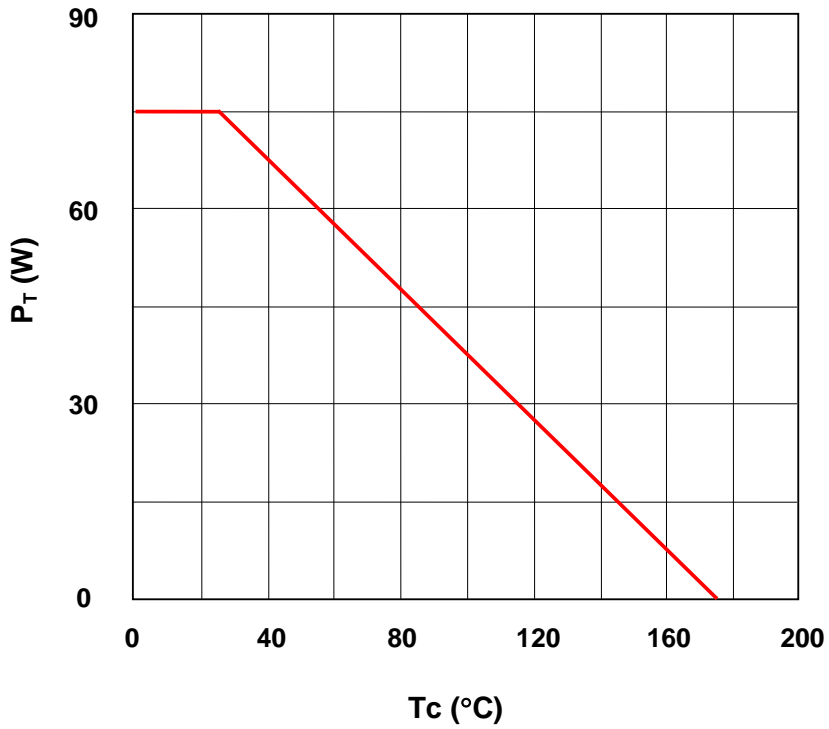
Output Power (Pout) vs. Frequency



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



Power Dissipation vs. Case Temperature



IM3 vs. Output Power Characteristics

