

FEATURES

■ HIGH POWER

P1dB=48.0dBm at 2.4GHz

■ HIGH GAIN

G1dB=10.0dB at 2.4GHz

■ PARTIALLY MATCHED TYPE

■ 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= 12V f = 2.4GHz IDSset≒8.0A | dBm | 47.0 | 48.0 | — |
| Power Gain at 1dB Gain Compression Point | G1dB | | dB | 9.0 | 10.0 | — |
| Drain Current | IDS1 | | A | — | 12.0 | 15.0 |
| Power Added Efficiency | ηadd | | % | — | 39 | — |
| Channel Temperature Rise | ΔTch | (VDS X IDS + Pin – P1dB) X Rth(c-c) | °C | — | — | 100 |

Recommended gate resistance (Rg) : Rg = 30 Ω (Max.)

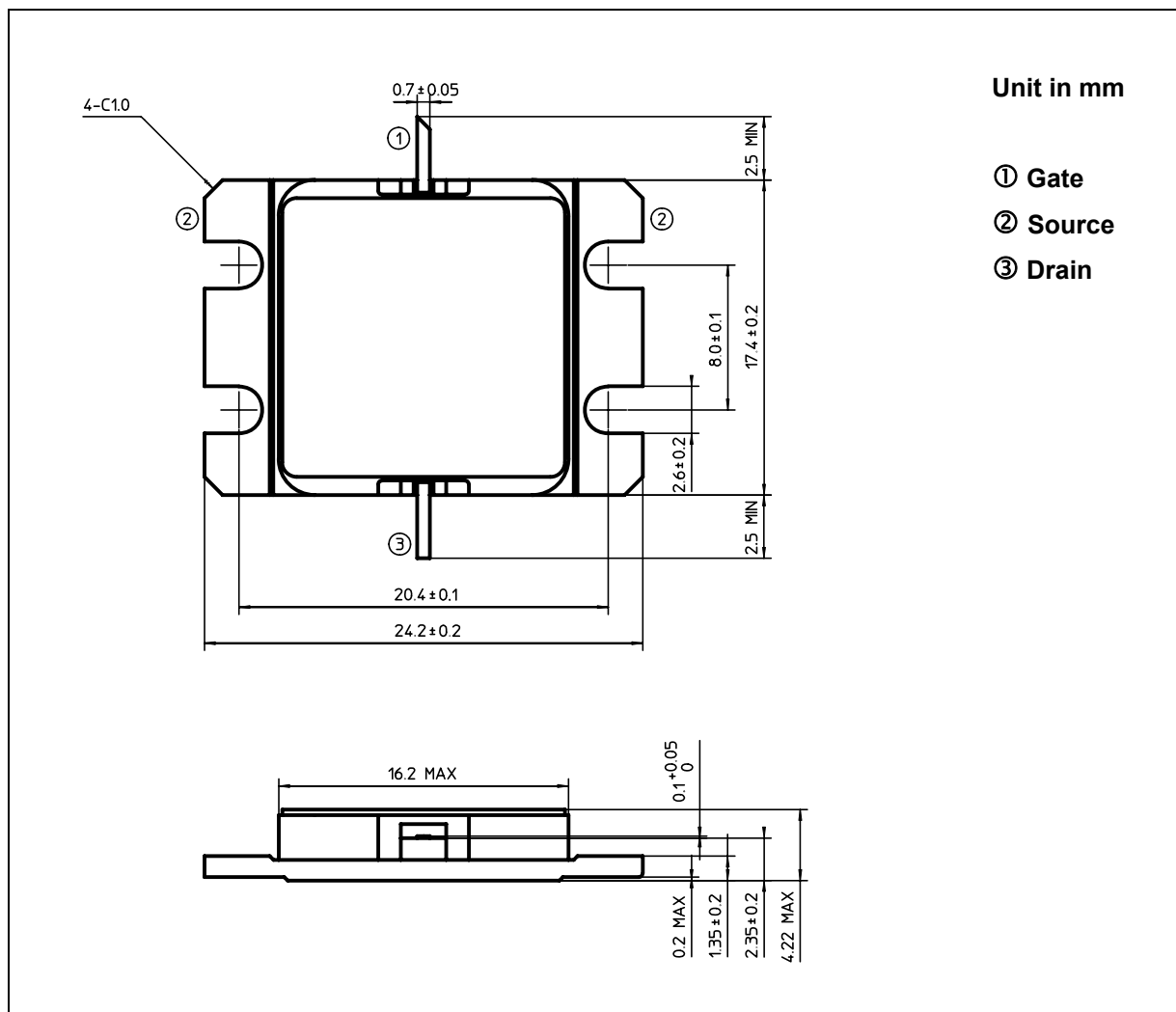
ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| CHARACTERISTICS | SYMBOL | CONDITIONS | UNIT | MIN. | TYP. | MAX. |
|----------------------------------|----------|-----------------------|------|------|------|------|
| Transconductance | gm | VDS= 3V IDS= 12.0A | S | — | 20.0 | — |
| Pinch-off Voltage | VGSoff | VDS= 3V IDS= 300mA | V | -1.0 | -1.8 | -3.0 |
| Saturated Drain Current | IDSS | VDS= 3V VGS= 0V | A | — | 38 | — |
| Gate-Source Breakdown Voltage | VGSO | IGS= -10.0mA | V | -5 | — | — |
| Thermal Resistance | Rth(c-c) | Channel to Case | °C/W | — | 0.6 | 0.8 |

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

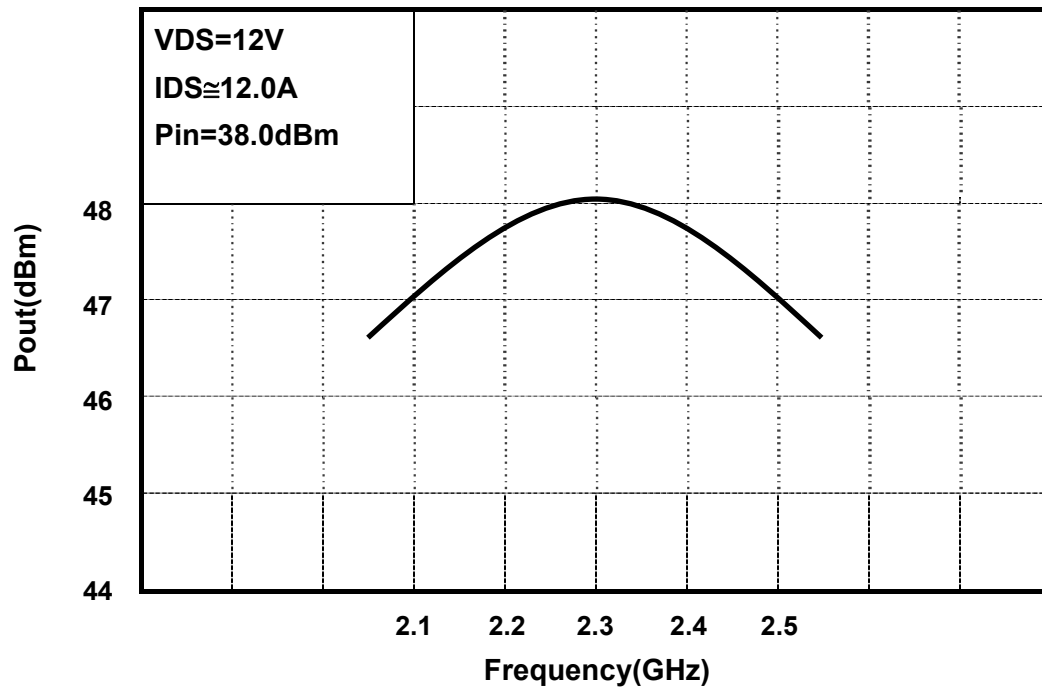
| CHARACTERISTICS | SYMBOL | UNIT | RATING |
|--------------------------------------|--------|------|------------|
| Drain-Source Voltage | VDS | V | 15 |
| Gate-Source Voltage | VGS | V | -5 |
| Drain Current | IDS | A | 26.0 |
| Total Power Dissipation (Tc= 25 °C) | PT | W | 187.5 |
| Channel Temperature | Tch | °C | 175 |
| Storage | Tstg | °C | -65 ~ +175 |

PACKAGE OUTLINE (2-16G1B)**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

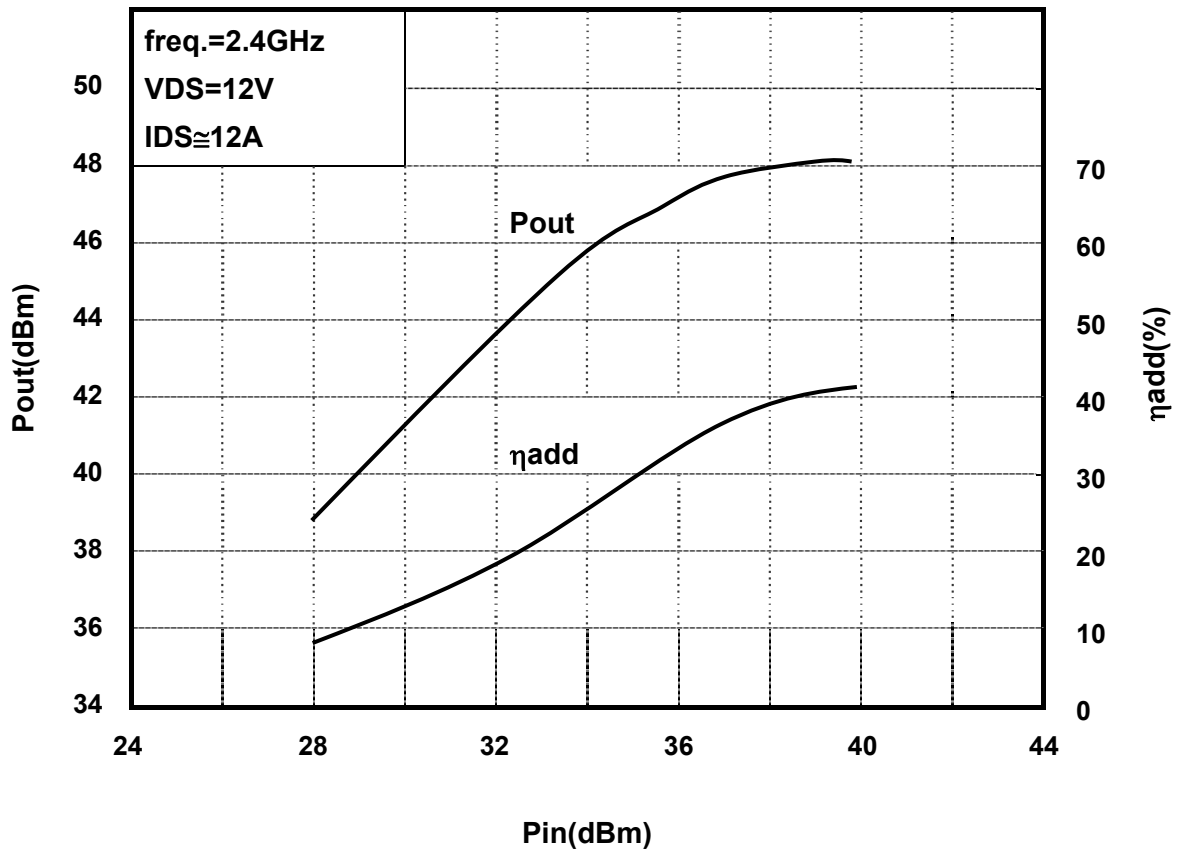
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

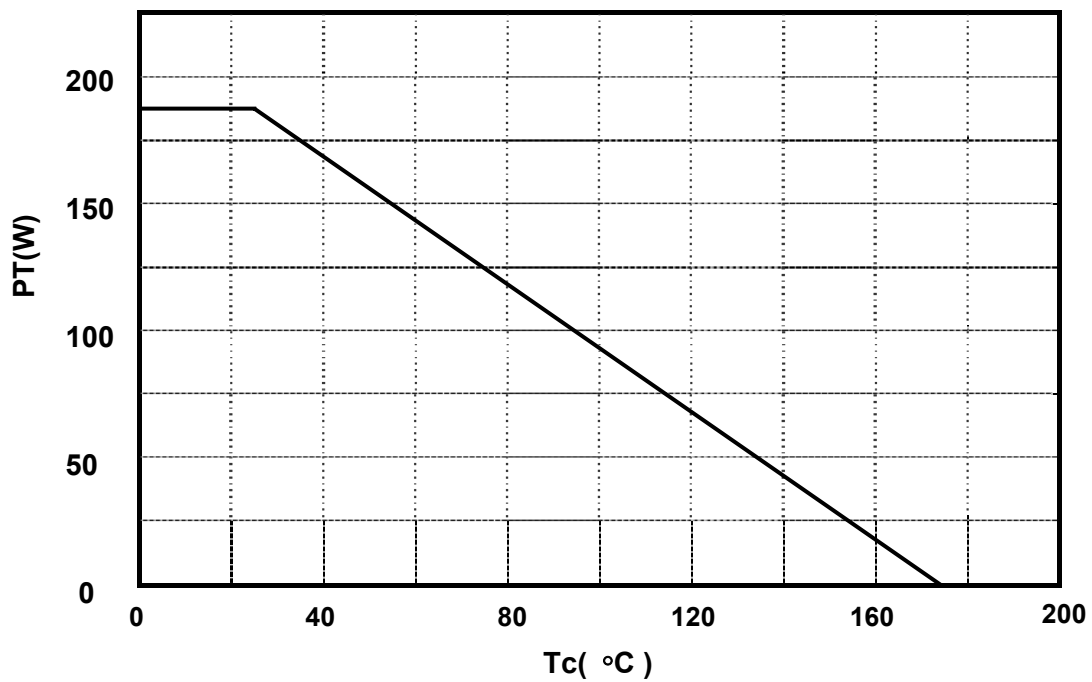
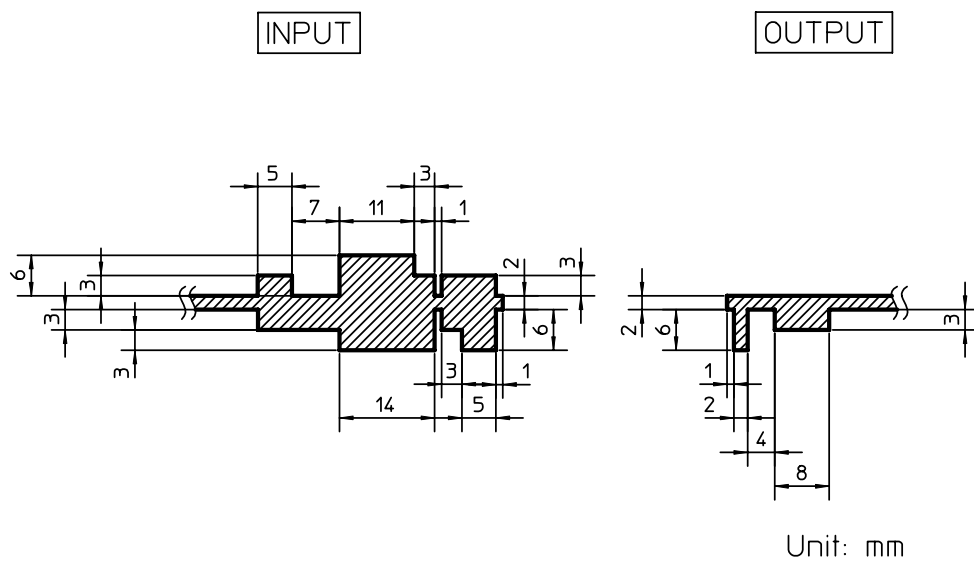
RF PERFORMANCE

Output Power (Pout) vs. Frequency



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



Power Dissipation(PT) vs. Case Temperature(Tc)**DRAWING OF RECOMMENDABLE MATCHING NETWORK**

Substrate Material: Teflon ($\epsilon_r=2.8$)
 Thickness: 0.76mm