

FEATURES

- **HIGH POWER**
P2dB=39.0dBm at 2.8GHz to 2.9GHz
- **HIGH GAIN**
G2dB=11.0dB at 2.8GHz to 2.9GHz
- **PARTIALLY MATCHED TYPE**
- **HERMETICALLY SEALED PACKAGE**

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

| CHARACTERISTICS | SYMBOL | CONDITIONS | UNIT | MIN. | TYP. | MAX. |
|--|-----------------|---|--|------|------|------|
| Output Power at 2dB Gain Compression Point | P2dB | VDS= 12V IDSset≅2.0A f = 2.8GHz to 2.9GHz | dBm | 39.0 | 39.5 | — |
| Power Gain at 2dB Gain Compression Point | G2dB | | dB | 11.0 | 11.5 | — |
| Drain Current | IDS | | A | — | 2.3 | 2.6 |
| Power Added Efficiency | η_{add} | | % | — | 30 | — |
| Channel Temperature Rise | ΔT_{ch} | | (VDS X IDS + Pin – P1dB) X Rth(c-c) | °C | — | — |

Recommended gate resistance (Rg) : Rg = 150 Ω (Max.)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| CHARACTERISTICS | SYMBOL | CONDITIONS | UNIT | MIN. | TYP. | MAX. |
|-------------------------------|----------|----------------------|------|------|------|------|
| Transconductance | gm | VDS= 3V IDS= 1.5A | S | — | 3.3 | — |
| Pinch-off Voltage | VGSoff | VDS= 3V IDS= 15mA | V | -1.0 | -1.9 | -3.3 |
| Saturated Drain Current | IDSS | VDS= 2V VGS= 0V | A | — | 4.5 | — |
| Gate-Source Breakdown Voltage | VGSO | IGS= -150μA | V | -5 | — | — |
| Thermal Resistance | Rth(c-c) | Channel to Case | °C/W | — | 3.2 | 4.8 |

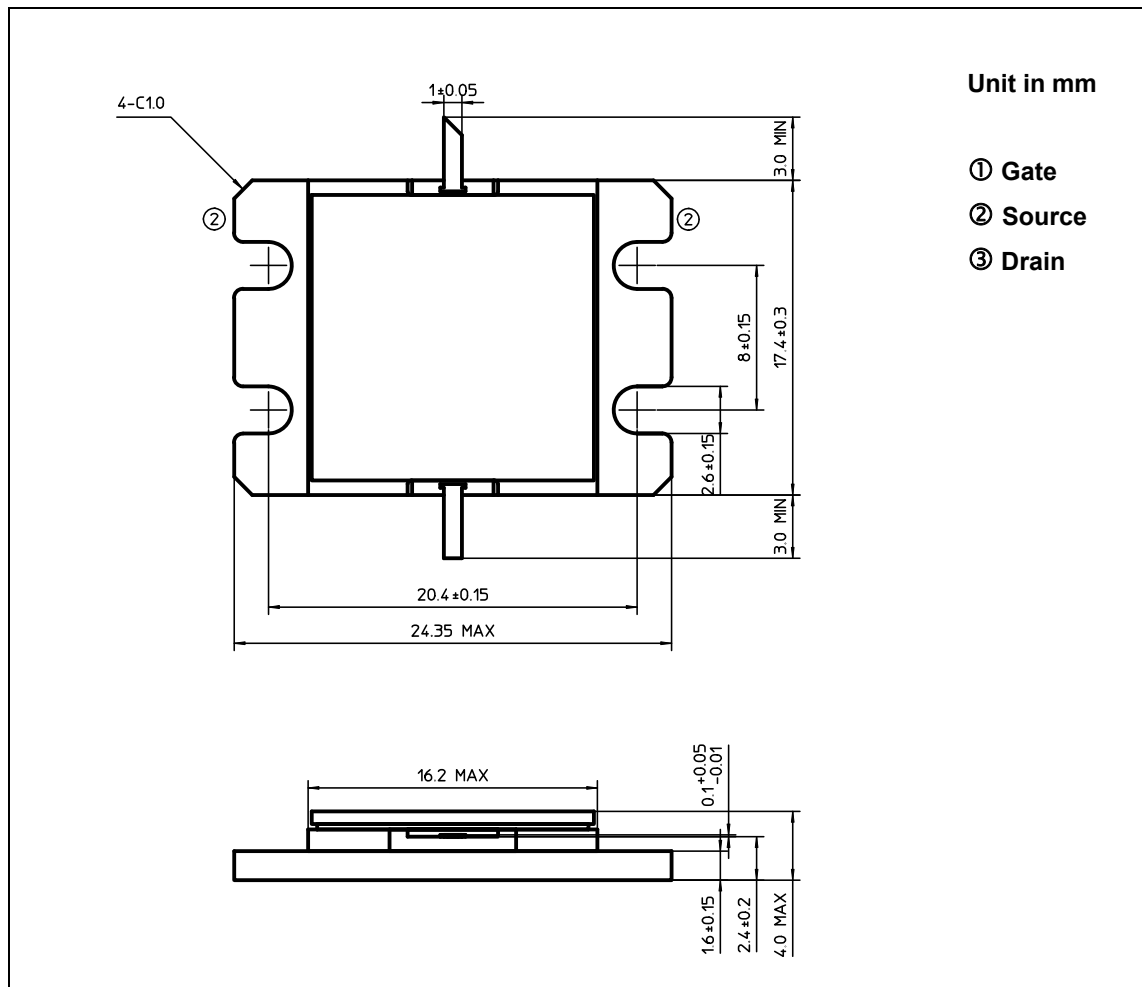
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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

| CHARACTERISTICS | SYMBOL | UNIT | RATING |
|--------------------------------------|--------|------|------------|
| Drain-Source Voltage | VDS | V | 15 |
| Gate-Source Voltage | VGS | V | -5 |
| Drain Current | IDS | A | 7.0 |
| Total Power Dissipation (Tc= 25 °C) | PT | W | 31.25 |
| Channel Temperature | Tch | °C | 175 |
| Storage | Tstg | °C | -65 ~ +175 |

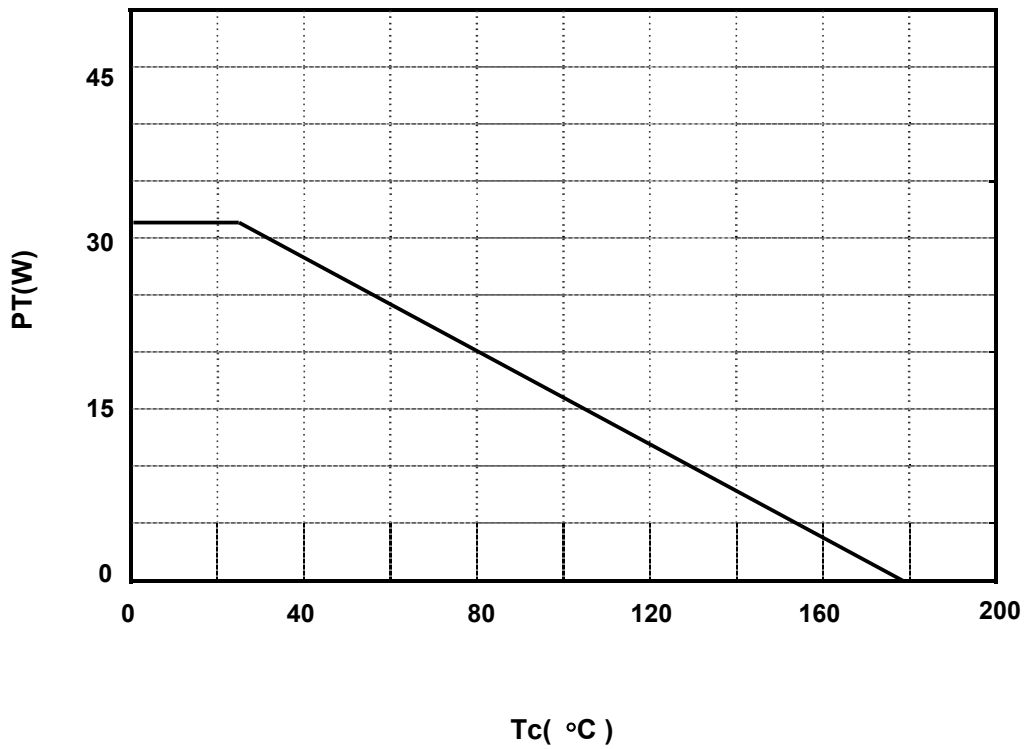
PACKAGE OUTLINE (2-16G6A)



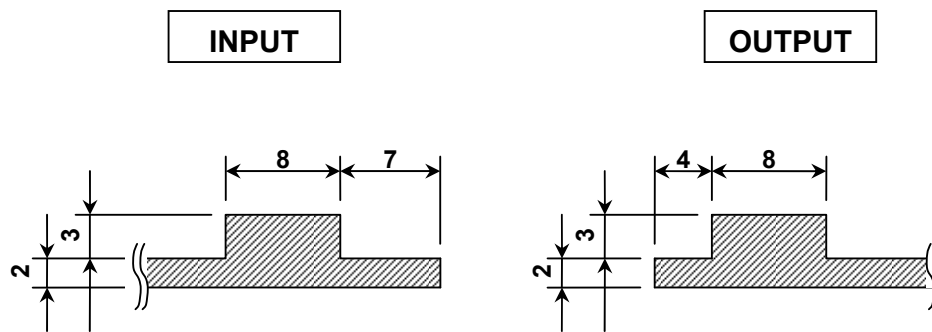
HANDLING PRECAUTIONS FOR PACKAGE MODEL

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

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



DRAWING OF RECOMMENDABLE MATCHING NETWORK



Unit: mm

Substrate Material: Teflon (Er=2.8)

Thickness: 0.8 mm