

FEATURES

- **HIGH POWER**
P1dB=45.0dBm at 14.0GHz to 14.5GHz
- **HIGH GAIN**
G1dB=5.5dB at 14.0GHz to 14.5GHz
- **LOW INTERMODULATION DISTORTION**
IM3(Min.)=-25dBc at Po=38.0dBm Single Carrier Level
- **BROAD BAND INTERNALLY MATCHED FET**
- **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≧7.0A f = 14.0 to 14.5GHz | dBm | 44.0 | 45.0 | — |
| Power Gain at 1dB Gain Compression Point | G1dB | | dB | 4.5 | 5.5 | — |
| Drain Current | IDS1 | | A | — | 10.0 | 11.0 |
| Gain Flatness | ΔG | | dB | — | — | ±0.8 |
| Power Added Efficiency | ηadd | | % | — | 23 | — |
| 3rd Order Intermodulation Distortion | IM3 | Two-Tone Test Po= 38.0dBm | dBc | -25 | — | — |
| Drain Current | IDS2 | (Single Carrier Level) | A | — | 9.0 | 10.1 |
| Channel Temperature Rise | ΔTch | (VDS X IDS +Pin-P1dB) X Rth(c-c) | °C | — | — | 100 |

Recommended gate resistance(Rg) : Rg= 10 Ω(MAX.)

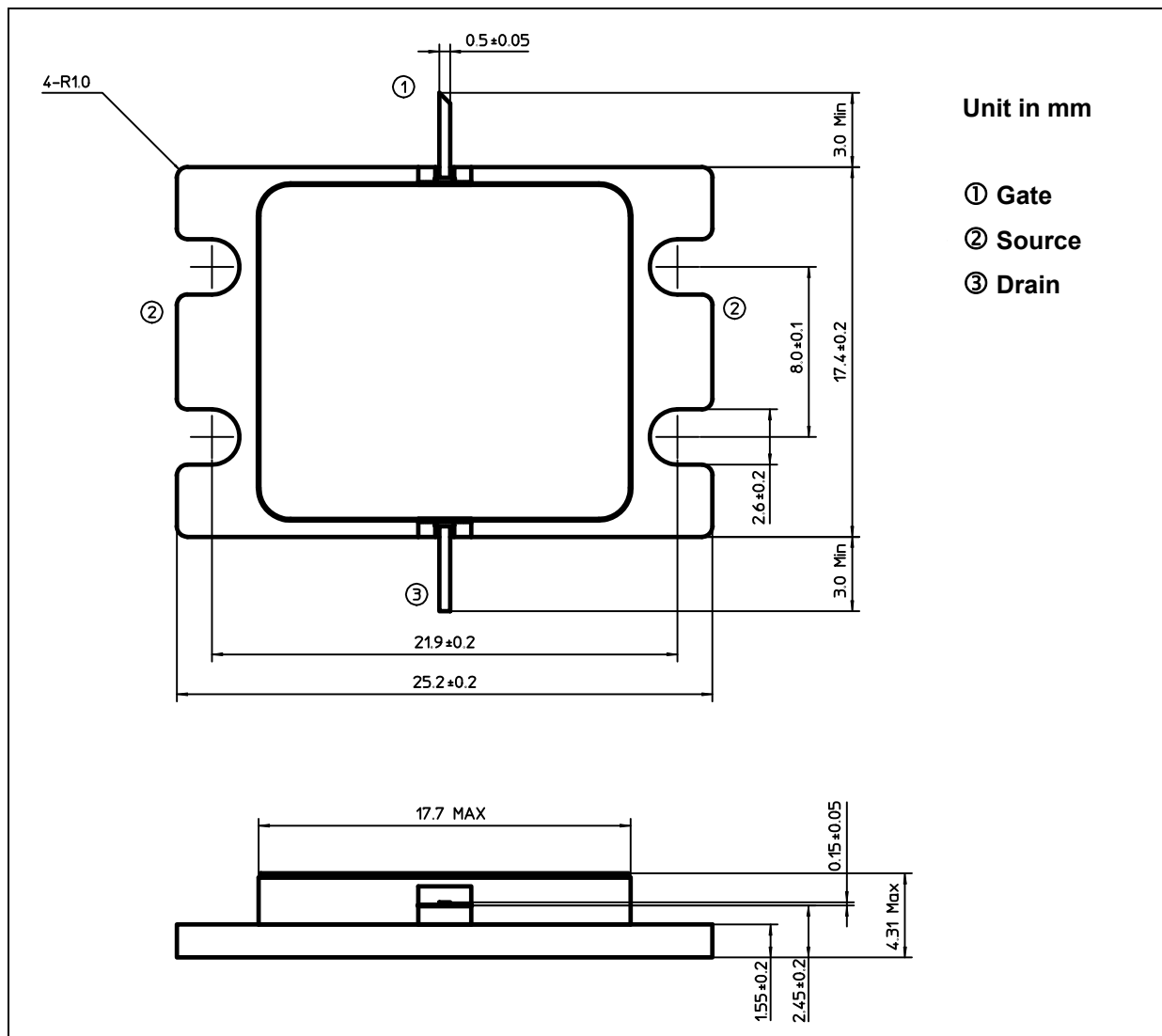
ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| CHARACTERISTICS | SYMBOL | CONDITIONS | UNIT | MIN. | TYP. | MAX. |
|-------------------------------|----------|-----------------------|------|------|------|------|
| Transconductance | gm | VDS= 3V IDS= 9.6A | S | — | 5.5 | — |
| Pinch-off Voltage | VGSoff | VDS= 3V IDS= 290mA | V | -0.7 | -2.0 | -4.5 |
| Saturated Drain Current | IDSS | VDS= 3V VGS= 0V | A | — | 20.0 | — |
| Gate-Source Breakdown Voltage | VGSO | IGS= -290μA | V | -5 | — | — |
| Thermal Resistance | Rth(c-c) | Channel to Case | °C/W | — | 1.0 | 1.1 |

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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 | 20 |
| Total Power Dissipation (Tc= 25 °C) | PT | W | 136 |
| Channel Temperature | Tch | °C | 175 |
| Storage | Tstg | °C | -65 to +175 |

PACKAGE OUTLINE (7-AA03A)**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

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