

**FEATURES**

- n **LOW INTERMODULATION DISTORTION**  
 IM3=-45 dBc at Po= 35.0dBm,  
 Single Carrier Level
- n **HIGH POWER**  
 P1dB=45.5dBm at 5.85GHz to 6.75GHz
- n **HIGH GAIN**  
 G1dB=8.0dB(min.) at 5.85GHz to 6.75GHz
- n **BROAD BAND INTERNALLY MATCHED FET**
- n **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<br>f = 5.85 to 6.75GHz         | dBm  | 45.0 | 45.5 | —    |
| Power Gain at 1dB Gain Compression Point   | G1dB   |                                        | dB   | 8.0  | —    | —    |
| Drain Current                              | IDS1   |                                        | A    | —    | 8.0  | 9.0  |
| Gain Flatness                              | ΔG     |                                        | dB   | —    | —    | ±0.8 |
| Power Added Efficiency                     | ηadd   |                                        | %    | —    | 39   | —    |
| 3rd Order Intermodulation Distortion       | IM3    | Two-Tone Test<br>Po=35.0dBm            | dBc  | -42  | -45  | —    |
| Drain Current                              | IDS2   | (Single Carrier Level)                 | A    | —    | 8.0  | 9.0  |
| Channel Temperature Rise                   | ΔTch   | (VDS X IDS + Pin - P1dB)<br>X Rth(c-c) | °C   | —    | —    | 100  |

**Recommended gate resistance(Rg) : Rg= 28 W(MAX.)**

**ELECTRICAL CHARACTERISTICS ( Ta= 25°C )**

| CHARACTERISTICS               | SYMBOL   | CONDITIONS            | UNIT | MIN. | TYP. | MAX. |
|-------------------------------|----------|-----------------------|------|------|------|------|
| Transconductance              | gm       | VDS= 3V<br>IDS= 10.5A | mS   | —    | 6500 | —    |
| Pinch-off Voltage             | VGSoff   | VDS= 3V<br>IDS= 140mA | V    | -1.0 | -2.5 | -4.0 |
| Saturated Drain Current       | IDSS     | VDS= 3V<br>VGS= 0V    | A    | —    | 20   | —    |
| Gate-Source Breakdown Voltage | VGSO     | IGS= -420μA           | V    | -5   | —    | —    |
| Thermal Resistance            | Rth(c-c) | Channel to Case       | °C/W | —    | 1.0  | 1.3  |

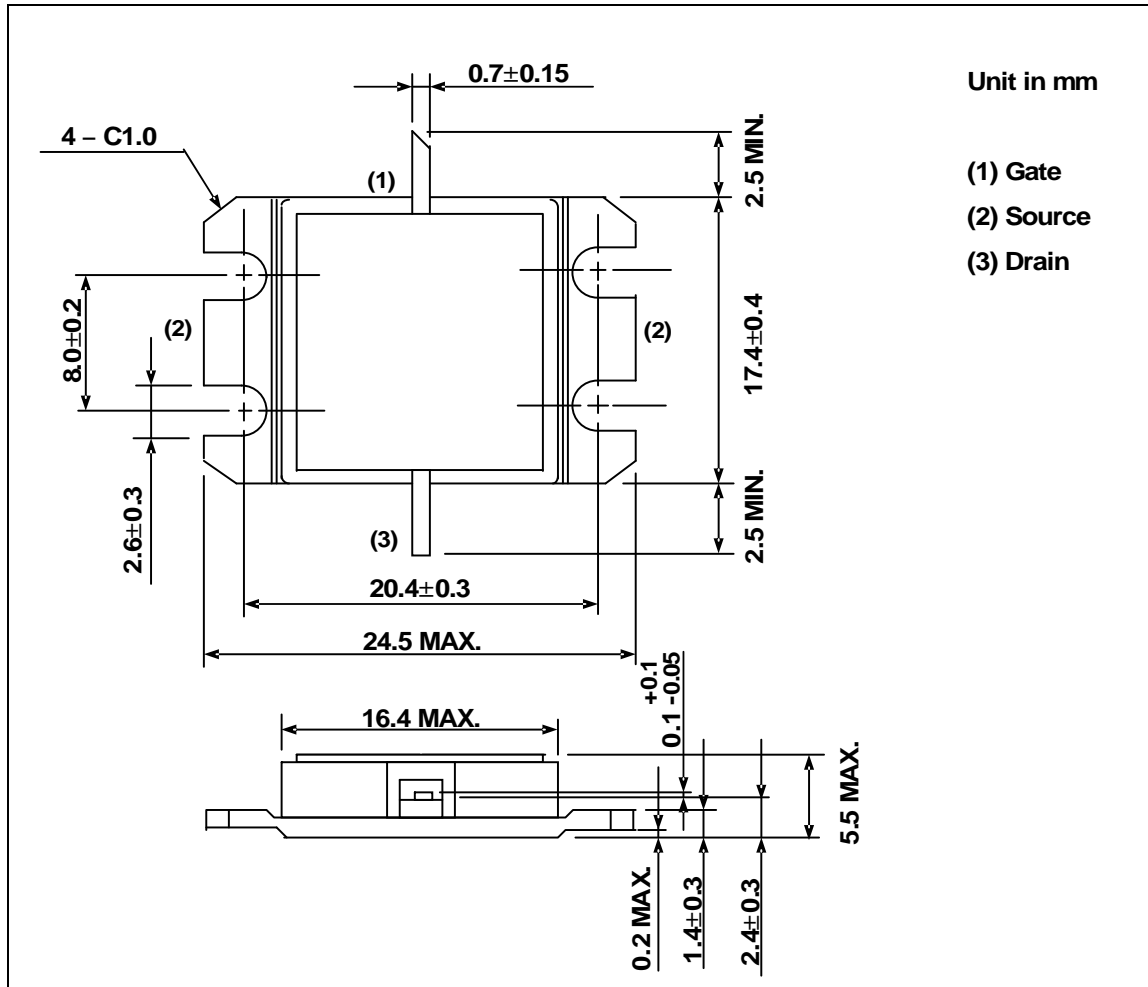
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**ABSOLUTE MAXIMUM RATINGS ( Ta= 25°C )**

| CHARACTERISTICS                     | SYMBOL | UNIT | RATING      |
|-------------------------------------|--------|------|-------------|
| Drain-Source Voltage                | VDS    | V    | 15          |
| Gate-Source Voltage                 | VGS    | V    | -5          |
| Drain Current                       | IDS    | A    | 20.0        |
| Total Power Dissipation (Tc= 25 °C) | PT     | W    | 115.4       |
| Channel Temperature                 | Tch    | °C   | 175         |
| Storage                             | Tstg   | °C   | -65 to +175 |

**PACKAGE OUTLINE (2-16G1B)**

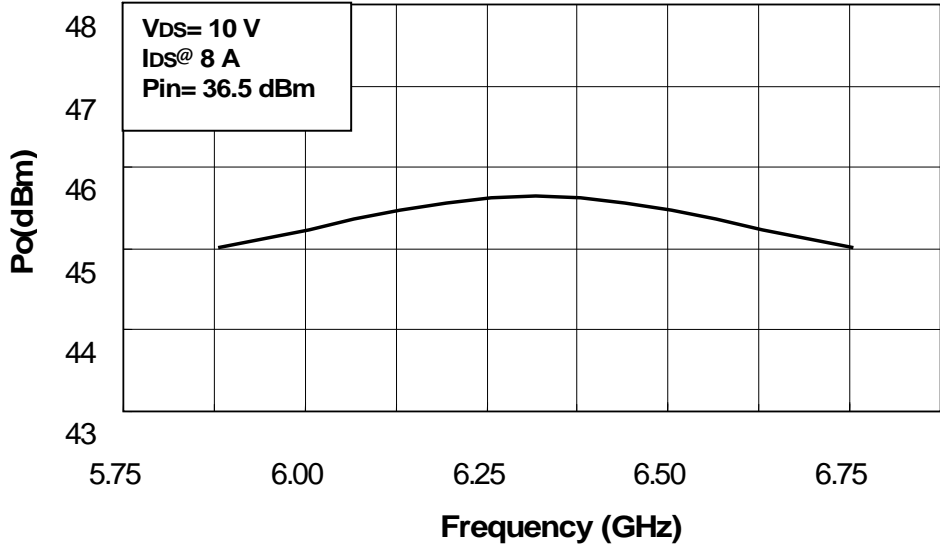


**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

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

RF PERFORMANCE

Output Power vs. Frequency



Output Power vs. Input Power

