

FEATURES

- **LOW INTERMODULATION DISTORTION**
 IM3= -45dBc at Pout=27.0 dBm
 at Single Carrier Level
- **HIGH GAIN**
 G1dB=8.0 dB at 12.7 GHz to 13.2 GHz
- **BROAD BAND INTERNALLY MATCHED FET**
- **HERMETICALLY SEALED PACKAGE**
- **HIGH POWER**
 P1dB=39.5 dBm at 12.7 GHz to 13.2 GHz

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDS= 10V IDSset=2.0A f= 12.7 to 13.2GHz	dBm	38.5	39.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	7.0	8.0	—
Drain Current	IDS1		A	—	2.0	2.5
Power Added Efficiency	η_{add}		%	—	39	—
Gain Flatness	ΔG		dB	—	—	± 0.8
3 rd Order Intermodulation Distortion	IM3	Two-Tone Test Po=27.0 dBm (Single Carrier Level)	dBc	-42	-45	—
Drain Current	IDS2		A	—	2.0	2.5
Channel Temperature Rise	ΔT_{ch}		°C	—	—	80
		(VDS X IDS + Pin – P1dB) X Rth(c-c)				

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

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

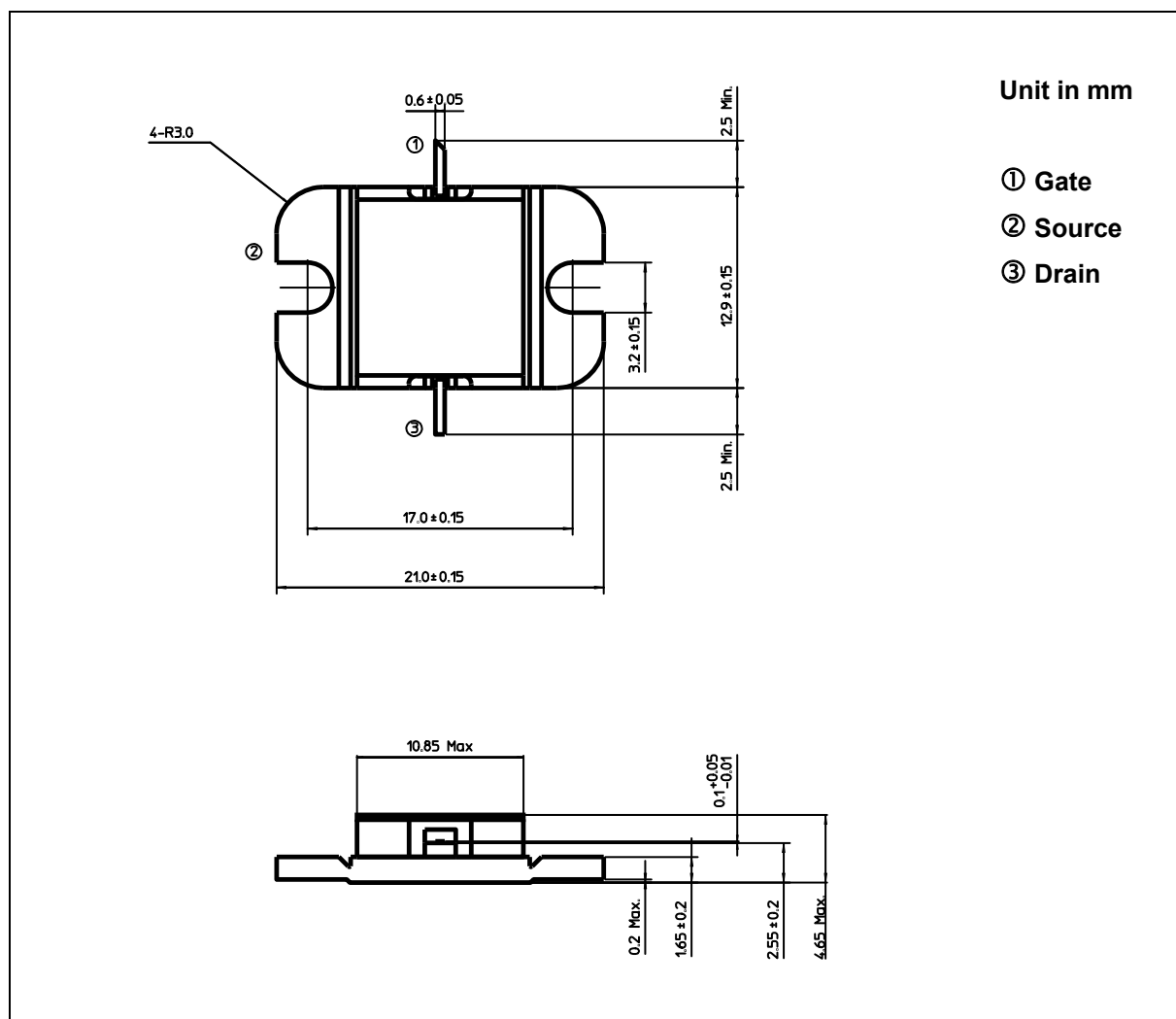
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 2.4 A	S	—	2.0	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 72mA	V	-0.5	-2.0	-4.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	4.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -72 μ A	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	3.0	3.7

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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	5.7
Total Power Dissipation (Tc= 25 °C)	PT	W	40.5
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

PACKAGE OUTLINE (2-11C1B)**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

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