

FEATURES

- n **LOW INTERMODULATION DISTORTION**
 IM3=-45 dBc at Pout= 31.5dBm
 Single Carrier Level
- n **HIGH POWER**
 P1dB=42.5dBm at 3.4GHz to 3.8GHz
- n **HIGH GAIN**
 G1dB=12.5dB at 3.4GHz to 3.8GHz
- 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 f = 3.4 to 3.8GHz	dBm	41.5	42.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	11.5	12.5	—
Drain Current	IDS1		A	—	4.4	5.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	η _{add}		%	—	38	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po=31.5dBm	dBc	-42	-45	—
Drain Current	IDS2	(Single Carrier Level)	A	—	4.4	5.0
Channel Temperature Rise	ΔTch	(VDS X IDS +Pin-P1dB) X Rth(c-c)	°C	—	—	100

Recommended Gate Resistance(Rg) : 100 W (Max.)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 5.2A	mS	—	3200	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 70mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	10	—
Gate-Source Breakdown Voltage	VGSO	IGS= -210mA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.4	2.0

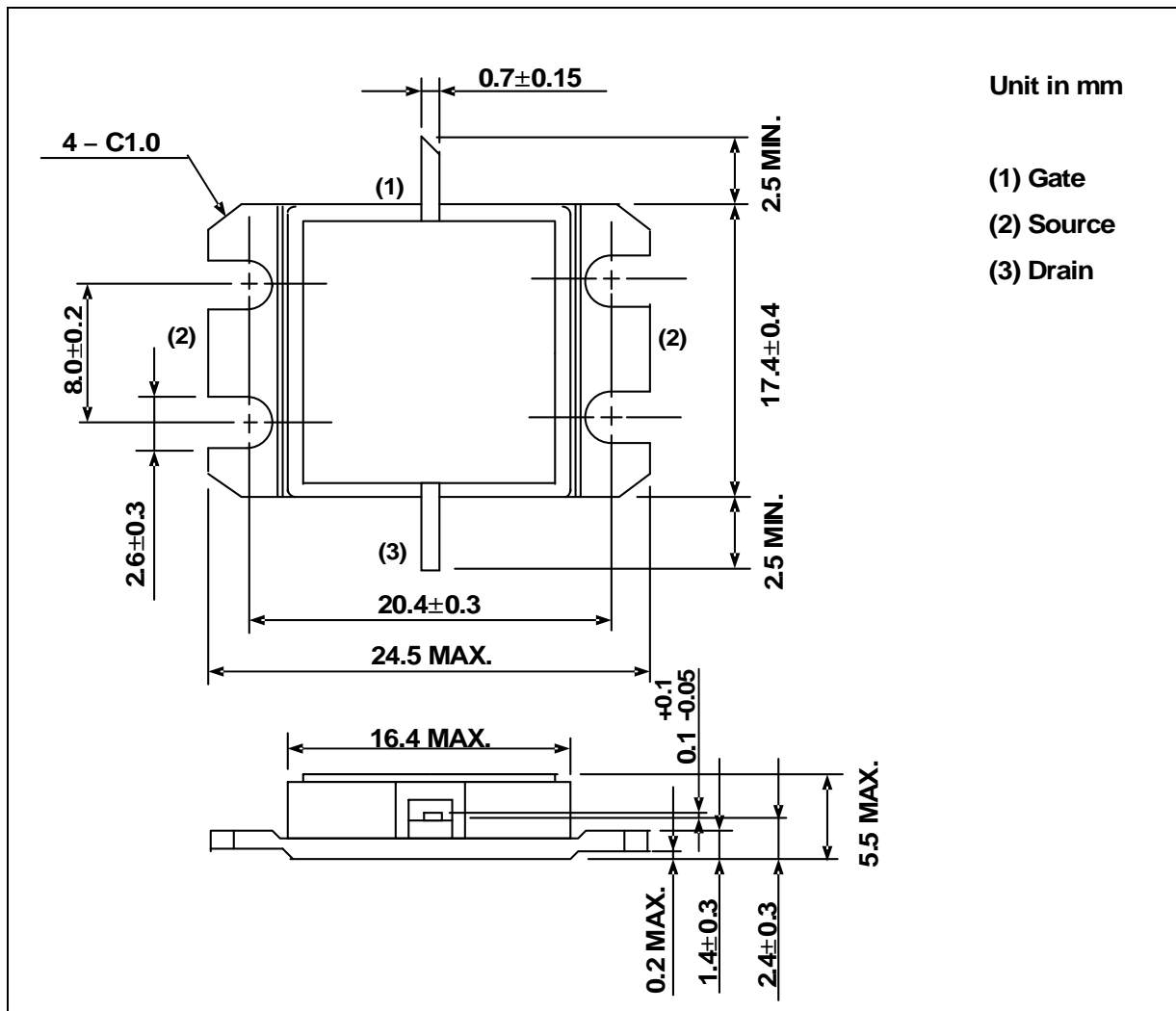
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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V _{DS}	V	15
Gate-Source Voltage	V _{GS}	V	-5
Drain Current	I _{DS}	A	13
Total Power Dissipation (T _c = 25 °C)	PT	W	75
Channel Temperature	T _{ch}	°C	175
Storage Temperature	T _{stg}	°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.