

FEATURES

- BROAD BAND INTERNALLY MATCHED HEMT
- HIGH POWER
Pout= 51.0dBm at Pin= 43.0dBm
- HIGH GAIN
GL= 12.5dB at Pin= 20.0dBm
- LOW INTERMODULATION DISTORTION
IM3(Min.)= -25dBc at Pout= 44.0dBm
Single Carrier Level
- HERMETICALLY SEALED PACKAGE



RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power	Pout	VDS= 40V IDSset= 0.8A f = 5.85 to 6.75GHz @Pin= 43dBm	dBm	50.0	51.0	—
Drain Current	IDS1		A	—	7.0	9.0
Power Added Efficiency	η_{add}		%	—	38	—
Linear Gain	GL	@Pin= 20dBm	dB	11.5	12.5	—
Gain flatness	ΔG		dB	—	—	± 0.8
3rd Order Intermodulation Distortion	IM3 IM3-2	Two-Tone Test Po= 44.0dBm, Δf = 5MHz Δf = 150MHz (IM3-2) (Single Carrier Level)	dBc	-25	-30 -27	—
Drain Current	IDS2		A	—	—	5.0
Channel Temperature Rise *1	ΔT_{ch}		°C	—	120	140

Recommended Gate Resistance(Rg): 10 Ω

*1: $\Delta T_{ch} = (VDS \times IDS + Pin(\text{two-tone}) - Po(\text{two-tone})) \times R_{th}(c-c)$, calculated using parameters of IM3 test

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

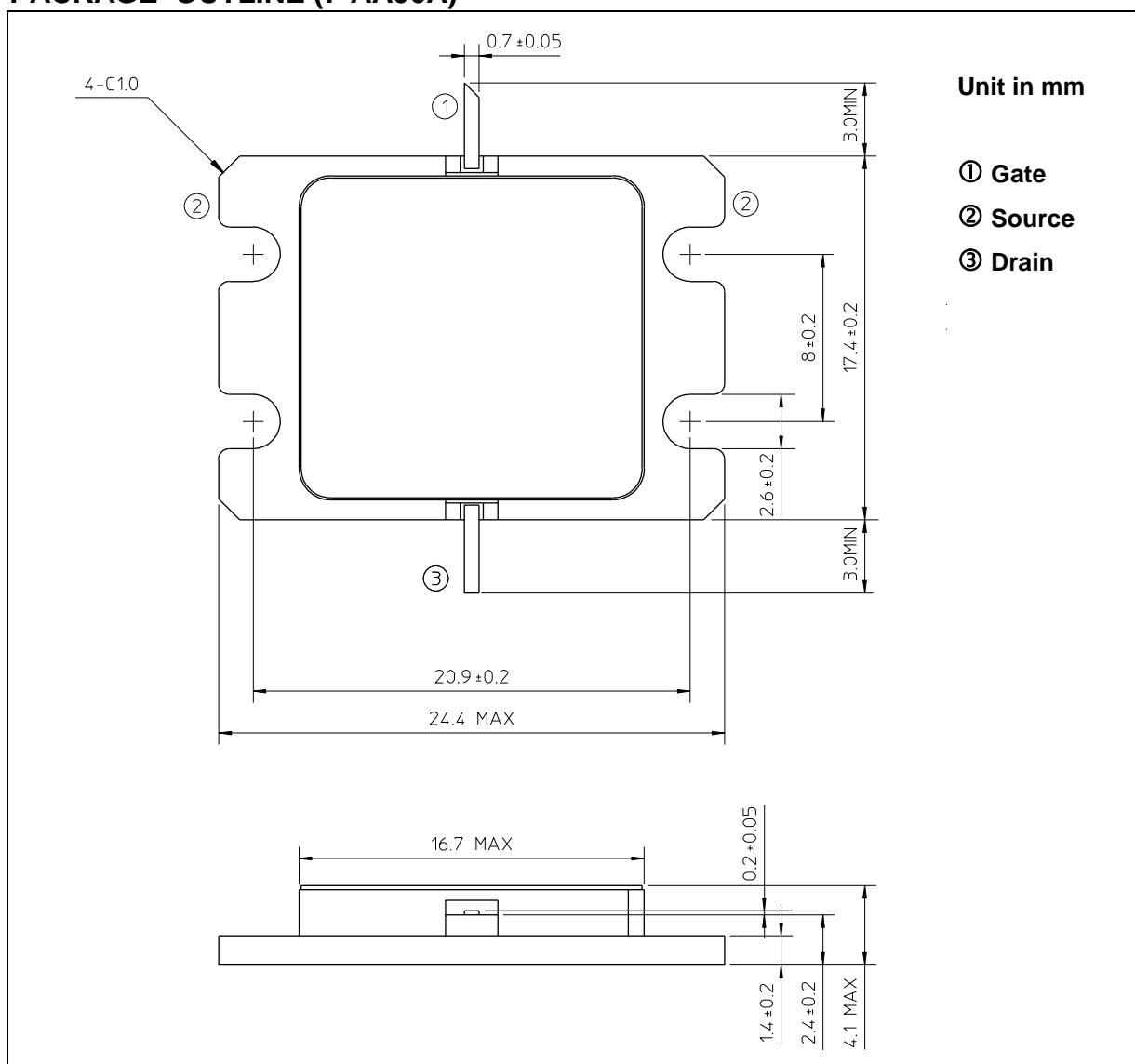
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 5V IDS= 10.0A	S	—	8.0	—
Pinch-off Voltage	VGSoff	VDS= 5V IDS= 30mA	V	-2.0	-3.0	-5.0
Gate-Source Breakdown Voltage	VGSO	IGS= -25mA	V	-10	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	0.8	1.0

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	50
Gate-Source Voltage	VGS	V	-10
Drain Current	IDS	A	6
Total Power Dissipation (Tc= 25°C)	PT	W	200
Channel Temperature	Tch	°C	225
Storage Temperature	Tstg	°C	-65 to +175

PACKAGE OUTLINE (7-AA06A)



HANDLING PRECAUTIONS FOR PACKAGE MODEL

Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C

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