

FEATURES

■ LOW INTERMODULATION DISTORTION

IM3= -30 dBc at Pout= 41.0dBm
 Single Carrier Level

■ HIGH POWER

P1dB=48.0dBm at 7.7GHz to 8.5GHz

■ HIGH GAIN

G1dB=7.5dB at 7.7GHz to 8.5GHz

■ 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 f = 7.7 to 8.5GHz IDSset=9.5A	dBm	47.0	48.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	6.5	7.5	—
Drain Current	IDS1		A	—	14.5	16.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	36	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po=41.0dBm (Single Carrier Level)	dBc	-25	-30	—
Drain Current	IDS2		A	—	—	13.1
Channel Temperature Rise	ΔTch	(VDS X IDS + Pin – P1dB) X Rth(c-c)	°C	—	—	100

Recommended Gate Resistance(Rg) : 28 Ω (Max.)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

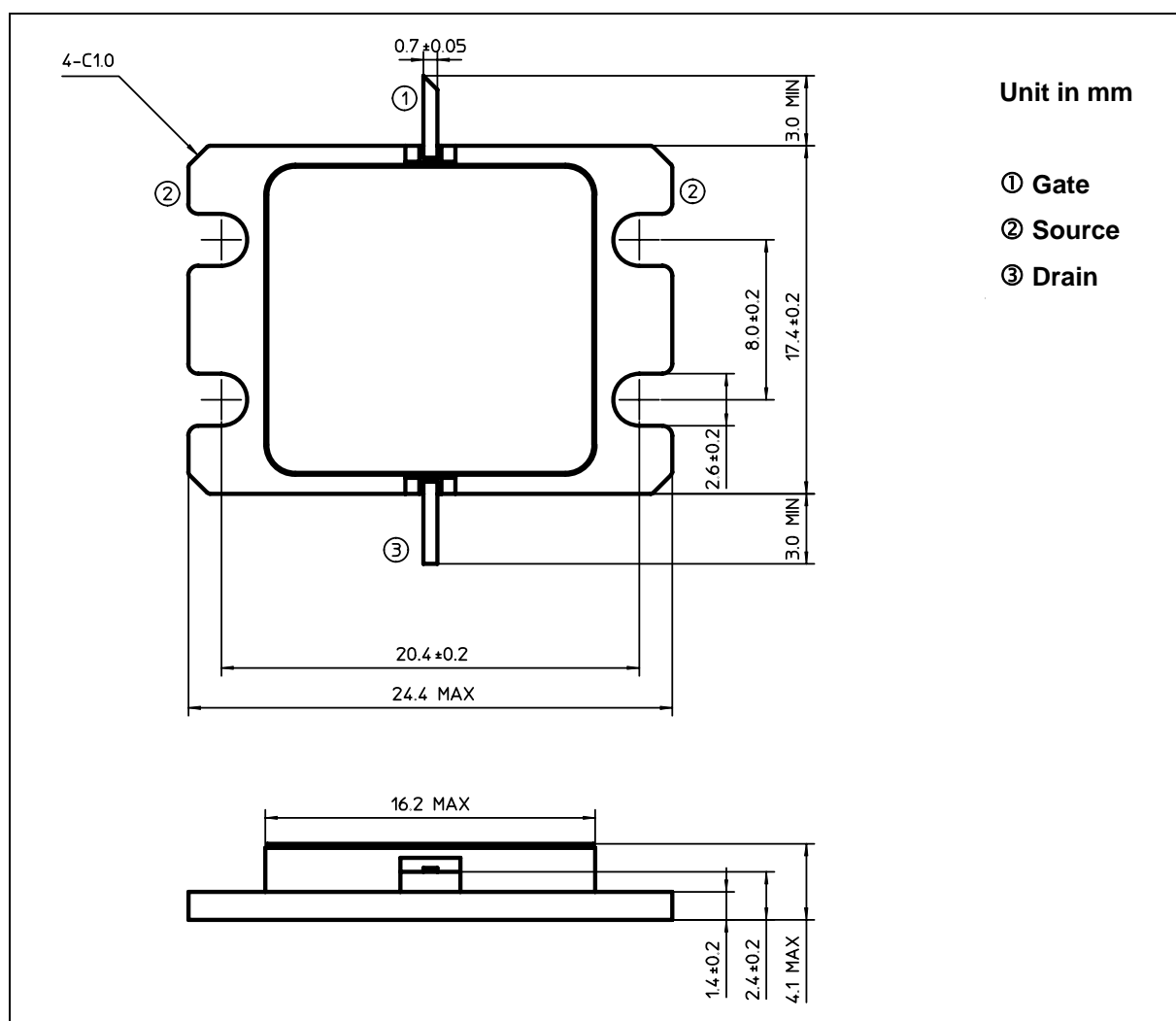
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 11.0 A	S	—	15.0	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 120 mA	V	-1.0	-1.8	-2.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	27	—
Gate-Source Breakdown Voltage	VGSO	IGS= -0.4mA	V	-5.0	—	—
Thermal Resistance	Rth(c-c)	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	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	20
Total Power Dissipation (Tc= 25 °C)	PT	W	150
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

PACKAGE OUTLINE (7-AA09A)**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

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