

FEATURES

- **HIGH POWER**
P1dB=45.0dBm at 13.75GHz to 14.5GHz
- **HIGH GAIN**
G1dB=5.0dB at 13.75GHz to 14.5GHz
- **LOW INTERMODULATION DISTORTION**
IM3(Min.)=-25dBc at Po=38.0dBm Single Carrier Level
- **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 IDSset≅7.0A f = 13.75 to 14.5GHz	dBm	44.0	45.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	4.0	5.0	—
Drain Current	IDS1		A	—	10.0	11.0
Power Added Efficiency	ηadd		%	—	22	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po= 38.0dBm	dBc	-25	—	—
Drain Current	IDS2	(Single Carrier Level)	A	—	9.0	10.1
Channel Temperature Rise	ΔTch	(VDS X IDS +Pin-P1dB) X Rth(c-c)	°C	—	—	100

Recommended gate resistance(Rg) : Rg= 10 Ω(MAX.)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

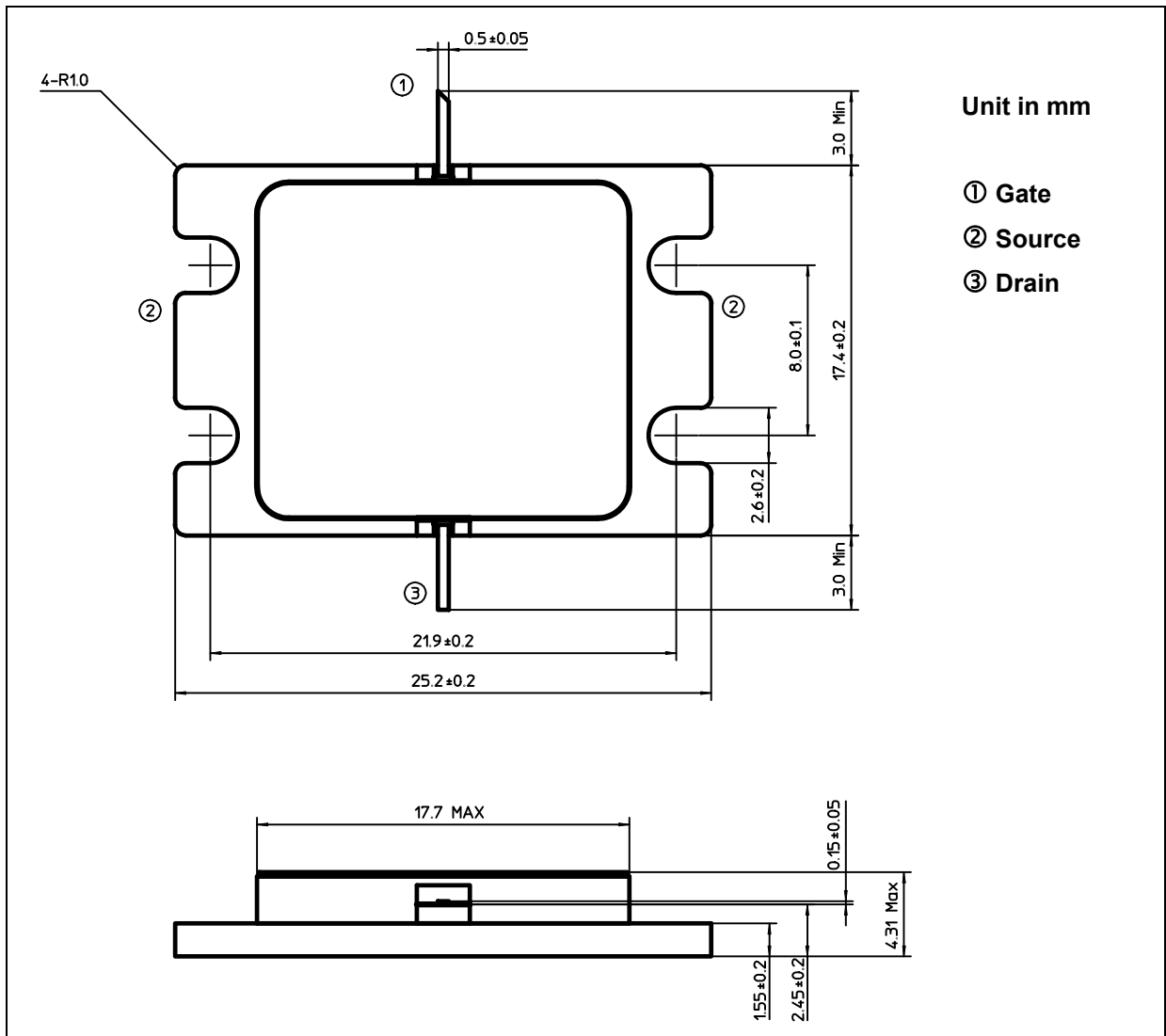
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 9.6A	S	—	5.5	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 290mA	V	-0.7	-2.0	-4.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	20.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -290μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.0	1.1

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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	136
Channel Temperature	Tch	°C	175
Storage	Tstg	°C	-65 to +175

PACKAGE OUTLINE (7-AA03A)



HANDLING PRECAUTIONS FOR PACKAGE MODEL

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