

FEATURES

- BROAD BAND INTERNALLY MATCHED HEMT
- HIGH POWER
P_{out}= 47.0dBm at P_{in}= 41.0dBm
- HIGH GAIN
GL= 9.0dB at 9.5GHz to 10.5GHz
- HERMETICALLY SEALED PACKAGE



RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power	P _{out}	V _{DS} = 24V I _{DSS} set= 1.5A f= 9.5 to 10.5 GHz @P _{in} = 41.0dBm	dBm	46.0	47.0	—
Drain Current	I _{DS1}		A	—	5.0	6.0
Power Added Efficiency	η _{add}		%	—	31	—
Linear Gain	GL	@P _{in} = 20dBm	dB	7.0	9.0	—
Channel Temperature Rise	ΔT _{ch}	(V _{DS} X I _{DS} + P _{in} – P _{1dB}) X R _{th(c-c)}	°C	—	130	150

Recommended Gate Resistance(Rg): 13.3 Ω (TYP.)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

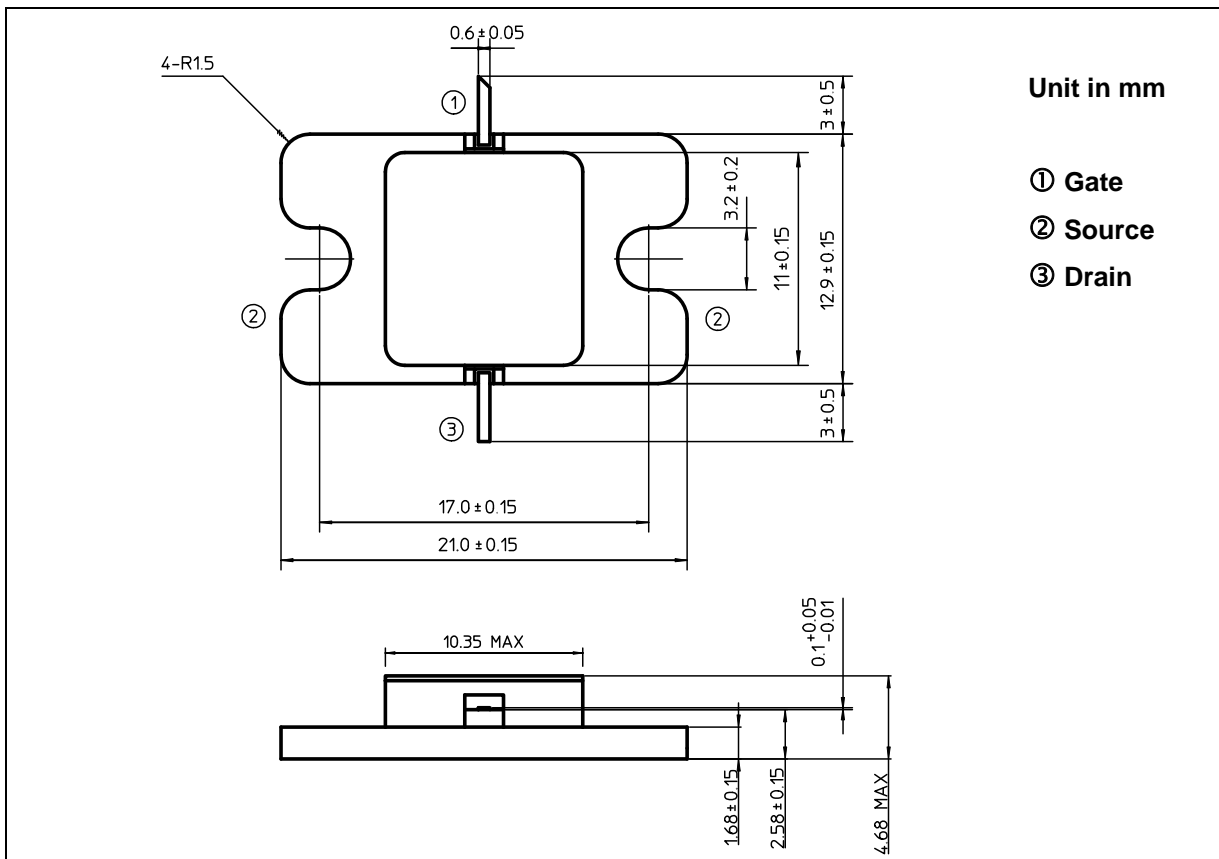
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	V _{DS} = 5V I _{DS} = 5.0A	S	—	4.5	—
Pinch-off Voltage	V _{GSo} ff	V _{DS} = 5V I _{DS} = 23mA	V	-2.6	-4.0	-6.0
Saturated Drain Current	I _{DSS}	V _{DS} = 5V V _{GS} = 0V	A	—	15.0	18.0
Gate-Source Breakdown Voltage	V _{GSO}	I _{GS} = -10mA	V	-10.0	—	—
Thermal Resistance	R _{th(c-c)}	Channel to Case	°C/W	—	1.4	1.6

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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	15.0
Total Power Dissipation (Tc= 25 °C)	PT	W	140
Channel Temperature	Tch	°C	250
Storage Temperature	Tstg	°C	-65 to +175

PACKAGE OUTLINE (7-AA04A)



HANDLING PRECAUTIONS FOR PACKAGE MODEL

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