

FEATURES

■ HIGH POWER

Pout=47.0dBm at Pin=41.0dBm

■ HIGH GAIN

GL=9.0dB at 8.5GHz to 9.6GHz

■ BROAD BAND INTERNALLY MATCHED HEMT
HERMETICALLY SEALED PACKAGE

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power	Pout	VDS= 24V	dBm	46.0	47.0	—
Drain Current	IDS1	IDSset≤1.5A	A	—	5.0	6.0
Power Added Efficiency	ηadd	f = 8.5 to 9.6GHz @Pin = 41dBm	%	—	31	—
Linear Gain	GL	@Pin = 20dBm	dB	7.0	9.0	—
Channel Temperature Rise	ΔTch	(VDS X IDS1 + Pin – Pout)X Rth(c-c)	°C	—	130	150

Recommended gate resistance(Rg) : Rg= 13.3 Ω(TYP.)

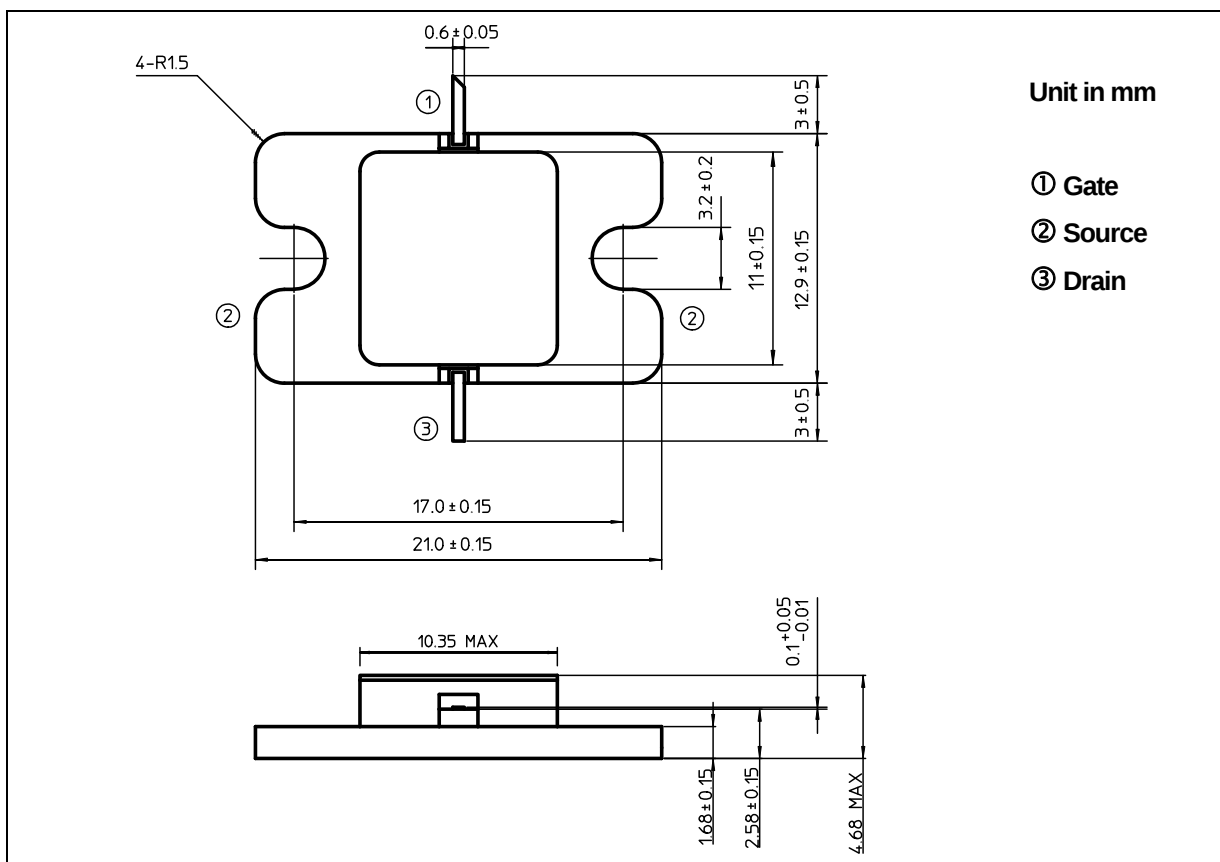
ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 5V IDS= 5.0A	S	—	4.5	—
Pinch-off Voltage	VGSoff	VDS= 5V IDS= 23mA	V	-1	-4	-6
Saturated Drain Current	IDSS	VDS= 5V VGS= 0V	A	—	15	—
Gate-Source Breakdown Voltage	VGSO	IGS= -10mA	V	-10	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	—	1.6

◆The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA for any infringements of patents or other rights of the third parties which may results from its use, No license is granted by implication or otherwise under any patent or patent rights of TOSHIBA or others. The information contained herein is subject to change without prior notice. It is therefor advisable to contact TOSHIBA before proceeding with design of equipment incorporating this product.

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
Total Power Dissipation (Tc= 25 °C)	PT	W	140
Channel Temperature	Tch	°C	250
Storage	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.