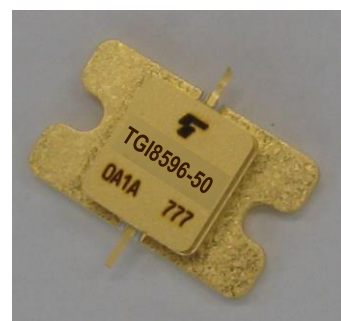


FEATURES

- BROAD BAND INTERNALLY MATCHED HEMT
- HIGH POWER
 $P_{out} = 47.0\text{dBm}$ at $P_{in} = 41.0\text{dBm}$
- HIGH GAIN
 $GL = 9.0\text{dB}$ at 8.5GHz to 9.6GHz
- HERMETICALLY SEALED PACKAGE



RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power	P_{out}	$V_{DS} = 24\text{V}$ $I_{DSS} = 1.5\text{A}$ $f = 8.5 \text{ to } 9.6 \text{ GHz}$ $@ P_{in} = 41.0\text{dBm}$	dBm	46.0	47.0	—
Drain Current	I_{DS}		A	—	5.0	6.0
Power Added Efficiency	η_{add}		%	—	31	—
Linear Gain	GL	@ $P_{in} = 20\text{dBm}$	dB	7.0	9.0	—
Channel Temperature Rise	ΔT_{ch}	$(V_{DS} \times I_{DS} + P_{in} - P_{out}) \times R_{th(c-c)}$	°C	—	130	150

Recommended Gate Resistance(Rg): 13.3 Ω

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

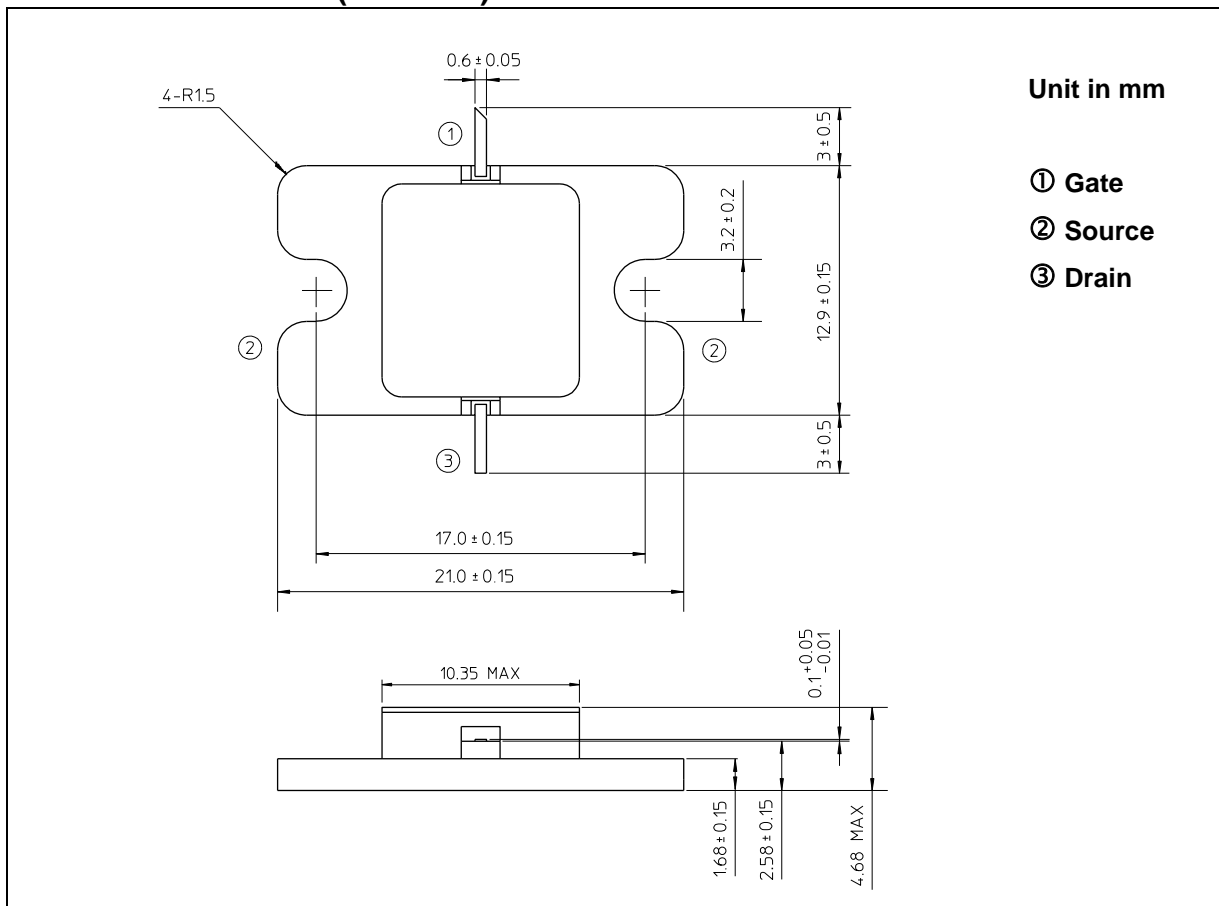
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	$V_{DS} = 5\text{V}$ $I_{DS} = 5.0\text{A}$	S	—	4.5	—
Pinch-off Voltage	V_{GSoff}	$V_{DS} = 5\text{V}$ $I_{DS} = 23\text{mA}$	V	-2.6	-4.0	-6.0
Saturated Drain Current	I_{DSS}	$V_{DS} = 5\text{V}$ $V_{GS} = 0\text{V}$	A	—	15.0	—
Gate-Source Breakdown Voltage	V_{GS0}	$I_{GS} = -10\text{mA}$	V	-10.0	—	—
Thermal Resistance	$R_{th(c-c)}$	Channel to Case	°C/W	—	1.4	1.6

◆ The information contained herein is presented as guidance for product use. No responsibility is assumed by TOSHIBA INFRASTRUCTURE SYSTEMS & SOLUTIONS CORPORATION (hereinafter, referred to as "TISS") for any infringement of patents or any other intellectual property rights of third parties that may result from the use of product. No license to any intellectual property right is granted by this document. The information contained herein is subject to change without prior notice. It is advisable to contact TISS 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	15.0
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 or 3 seconds at 350°C.