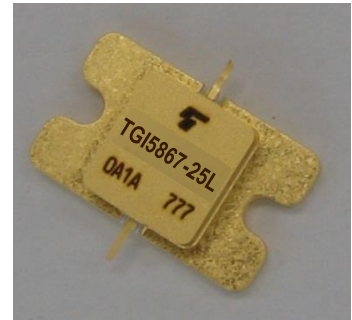


FEATURES

- BROAD BAND INTERNALLY MATCHED HEMT
- HIGH POWER
 $P_{out} = 44.5\text{dBm}$ at $P_{in} = 35.0\text{dBm}$
- HIGH GAIN
 $GL = 13.5\text{dB}$ at 5.85GHz to 6.75GHz
- LOW INTERMODULATION DISTORTION
 $IM3(\text{Min.}) = -40\text{dBc}$ at $P_o = 29.0\text{dBm}$
 Single Carrier Level
- HERMETICALLY SEALED PACKAGE



RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power	P_{out}	$V_{DS} = 24\text{V}$ $I_{DSS} = 1.75\text{A}$ $f = 5.85 \text{ to } 6.75 \text{ GHz}$ $@ P_{in} = 35\text{dBm}$	dBm	44.0	44.5	—
Drain Current	I_{DS1}		A	—	2.7	3.2
Power Added Efficiency	η_{add}		%	—	39	—
Linear Gain	GL	$@ P_{in} = 20\text{dBm}$	dB	12.5	13.5	—
Gain Flatness	ΔG		dB	—	—	± 0.8
3rd Order Intermodulation Distortion	IM3	Two-Tone Test $P_o = 29.0\text{dBm}$, $\Delta f = 5\text{MHz}$ (Single Carrier Level)	dBc	-40	-42	—
Drain Current	I_{DS2}		A	—	—	2.0
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(R_g): 60 Ω

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

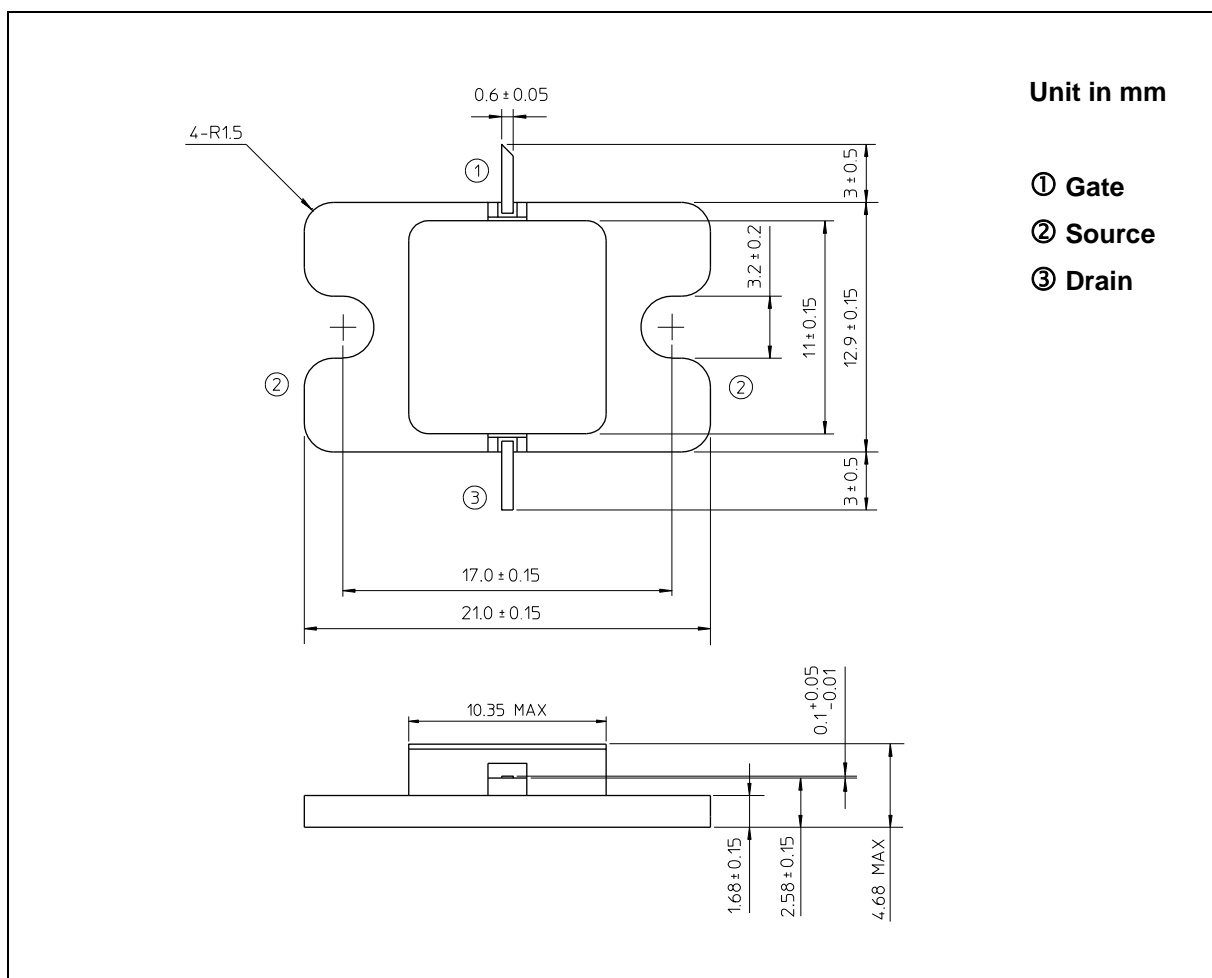
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	$V_{DS} = 5\text{V}$ $I_{DS} = 2.5\text{A}$	S	—	1.2	—
Pinch-off Voltage	V_{GSoff}	$V_{DS} = 5\text{V}$ $I_{DS} = 12\text{mA}$	V	-2.6	-4.0	-6.0
Saturated Drain Current	I_{DSS}	$V_{DS} = 5\text{V}$ $V_{GS} = 0\text{V}$	A	—	7.5	—
Gate-Source Breakdown Voltage	V_{GSO}	$I_{GS} = -5\text{mA}$	V	-10	—	—
Thermal Resistance	$R_{th(c-c)}$	Channel to Case	°C/W	—	2.8	3.2

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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	7.5
Total Power Dissipation (Tc= 25°C)	PT	W	70
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.