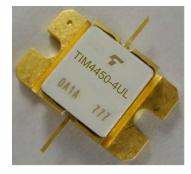
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MICROWAVE POWER GaAs FET TIM4450-4UL

MICROWAVE SEMICONDUCTOR TECHNICAL DATA

FEATURES

- ·BROAD BAND INTERNALLY MATCHED FET ·HIGH POWER
- P1dB= 36.5dBm at 4.4GHz to 5.0GHz •HIGH GAIN
- G1dB= 11.0dB at 4.4GHz to 5.0GHz
- 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= 0.9A f = 4.4 to 5.0GHz	dBm	35.5	36.5	_
Power Gain at 1dB Gain Compression Point	G1dB		dB	10.0	11.0	
Drain Current	IDS1		А	_	1.1	1.3
Gain Flatness	ΔG		dB			±0.6
Power Added Efficiency	ηadd		%		37	
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po= 25.5dBm, ∆f= 5MHz (Single Carrier Level)	dBc	-44	-47	
Drain Current	IDS2		А	_	1.1	1.3
Channel Temperature Rise	∆Tch	(VDS X IDS + Pin – P1dB) X Rth(c-c)	°C			80

Recommended Gate Resistance(Rg): 150 Ω

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

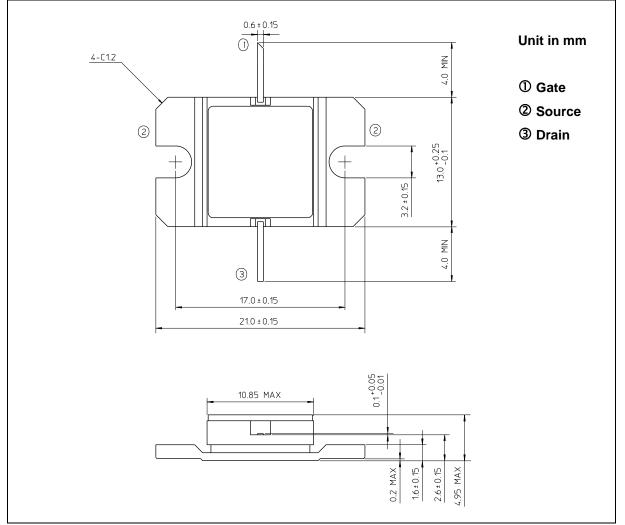
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 1.5A	S	_	0.9	_
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 15mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	А		2.6	
Gate-Source Breakdown Voltage	VGSO	IGS= -50μA	V	-5		
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W		4.5	6.0

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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	3.5
Total Power Dissipation (Tc= 25°C)	PT	W	25
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

PACKAGE OUTLINE (2-11D1B)



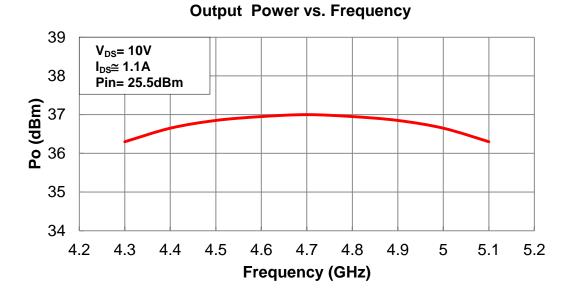
HANDLING PRECAUTIONS FOR PACKAGE MODEL

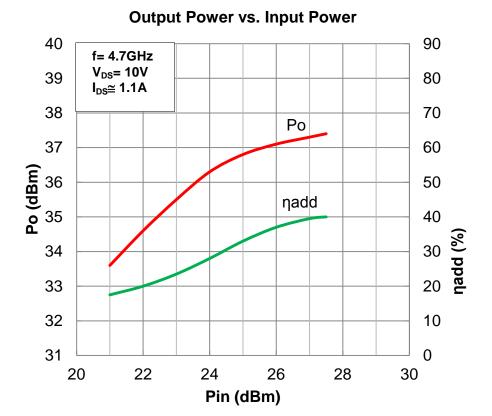
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C.

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MICROWAVE SEMICONDUCTOR TECHNICAL DATA

RF PERFORMANCE





- MICROWAVE SEMICONDUCTOR TECHNICAL DATA

