

FEATURES

■ LOW INTERMODULATION DISTORTION

IM3=-45 dBc at Po= 28.5dBm,
Single Carrier Level

■ HIGH POWER

P1dB=39.5dBm at 5.85GHz to 6.75GHz

■ HIGH GAIN

G1dB=8.0dB(Min.) at 5.85GHz to 6.75GHz

■ BROAD BAND INTERNALLY MATCHED FET

■ 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 f= 5.85 to 6.75GHz	dBm	38.5	39.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	8.0	—	—
Drain Current	IDS1		A	—	2.2	2.6
Gain Flatness	ΔG		dB	—	—	±0.6
Power Added Efficiency	ηadd		%	—	35	—
3 rd Order Intermodulation Distortion	IM3	Two-Tone Test Po=28.5dBm (Single Carrier Level)	dBc	-42	-45	—
Drain Current	IDS2		A	—	2.2	2.6
Channel Temperature Rise	ΔTch	(VDS X IDS + Pin - P1dB) X Rth(c-c)	°C	—	—	80

Recommended gate resistance(Rg) : Rg= 150 Ω (MAX.)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

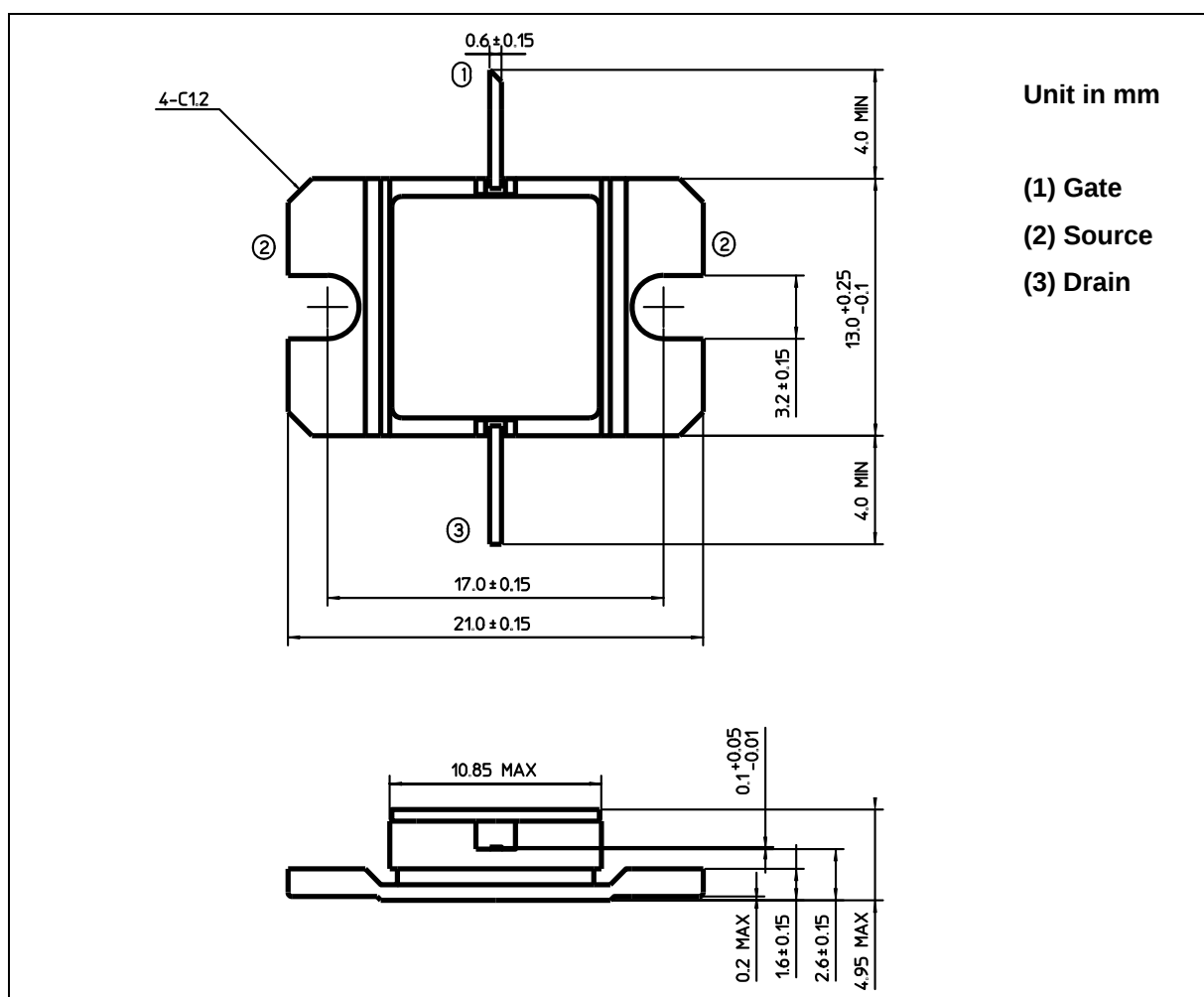
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	Gm	VDS= 3V IDS= 3.0A	mS	—	1800	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 30mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	5.2	—
Gate-Source Breakdown Voltage	VGSO	IGS= -100μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	2.5	3.8

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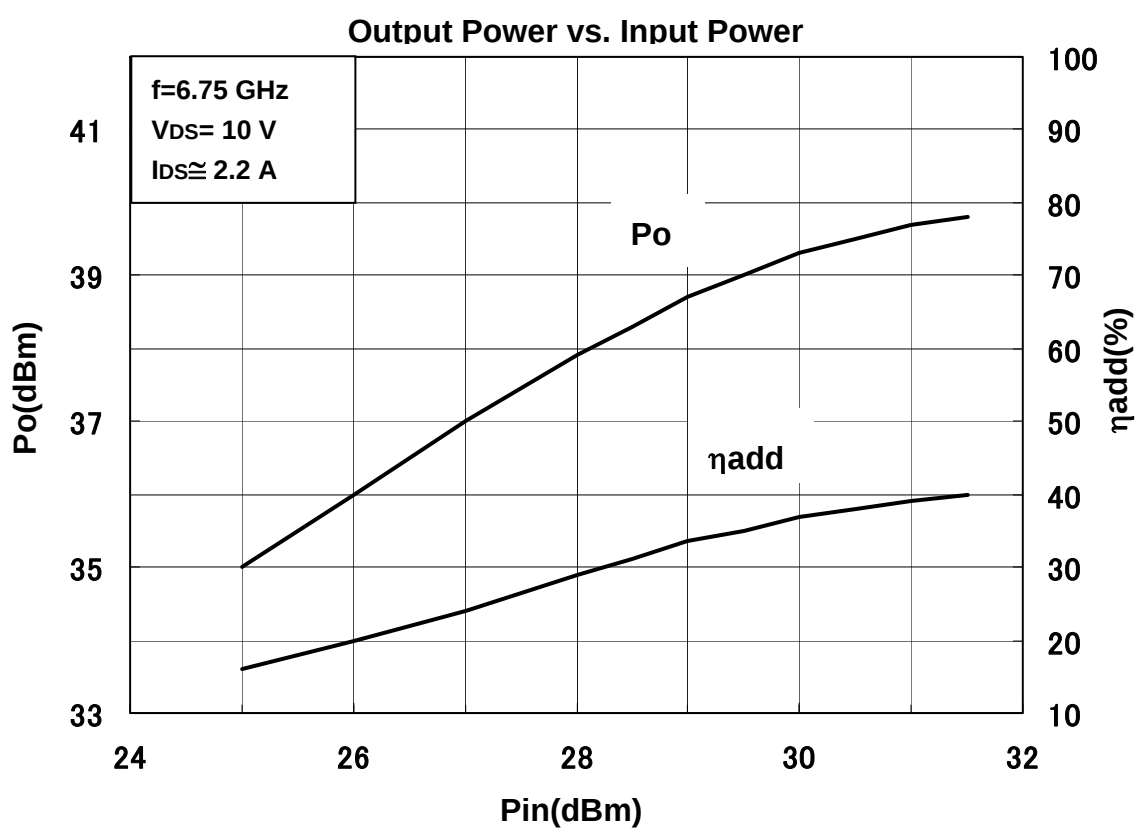
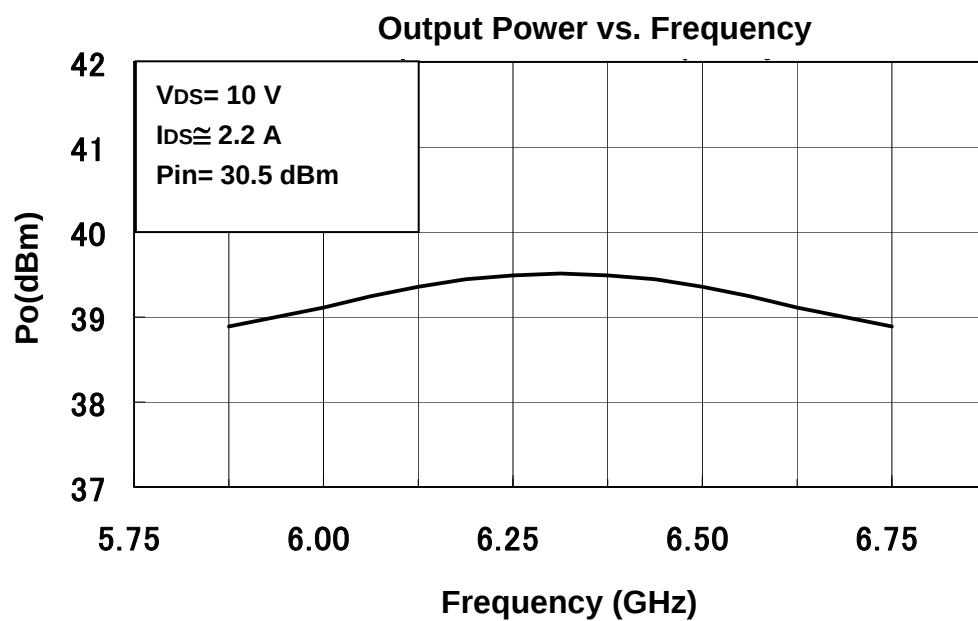
ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

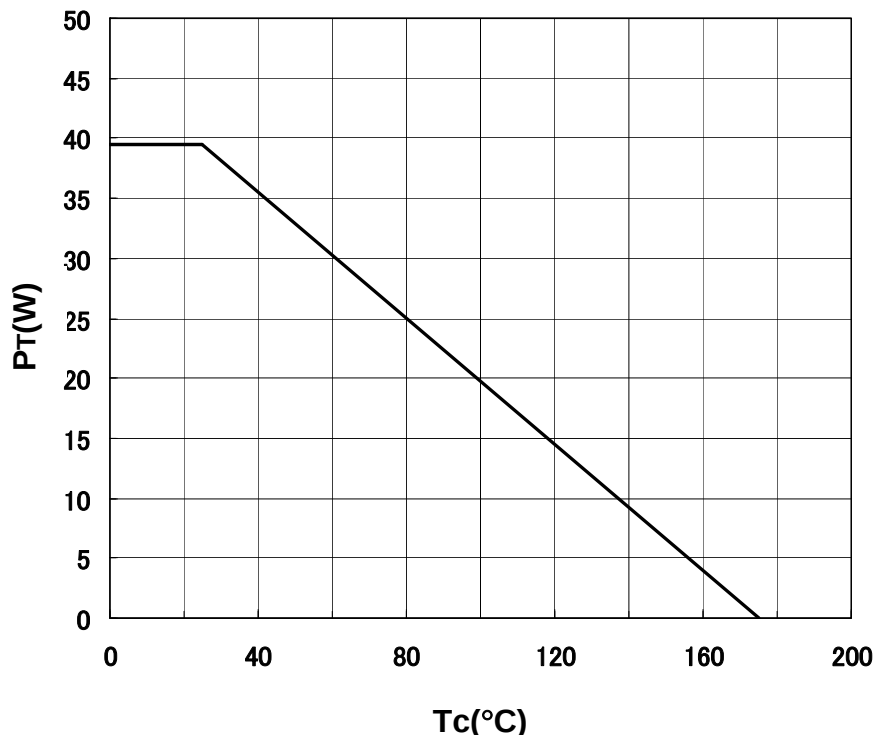
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	7.0
Total Power Dissipation (Tc= 25 °C)	PT	W	39.5
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

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.

RF PERFORMANCE



Power Dissipation vs. Case Temperature**IM3 vs. Output Power Characteristics**