

FEATURES

■ HIGH POWER

P1dB=41.5dBm at 7.1GHz to 7.9GHz

■ HIGH GAIN

G1dB=9.0dB at 7.1GHz to 7.9GHz

■ BROAD BAND INTERNALLY MATCHED

■ HERMETICALLY SEALED PACKAGE

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Compression Point	P1dB	VDS= 10V f = 7.1 – 7.9GHz	dBm	40.5	41.5	—
Power Gain at 1dB Compression Point	G1dB		dB	8.0	9.0	—
Drain Current	IDS1		A	—	3.2	3.8
Gain Flatness	ΔG		dB	—	—	±0.6
Power Added Efficiency	ηadd		%	—	39	—
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po=30.5dBm (Single Carrier Level)	dBc	-44	-47	—
Drain Current	IDS2		A	—	3.2	3.8
Channel Temperature Rise	ΔTch	VDS X IDS X Rth(c-c)	°C	—	—	80

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

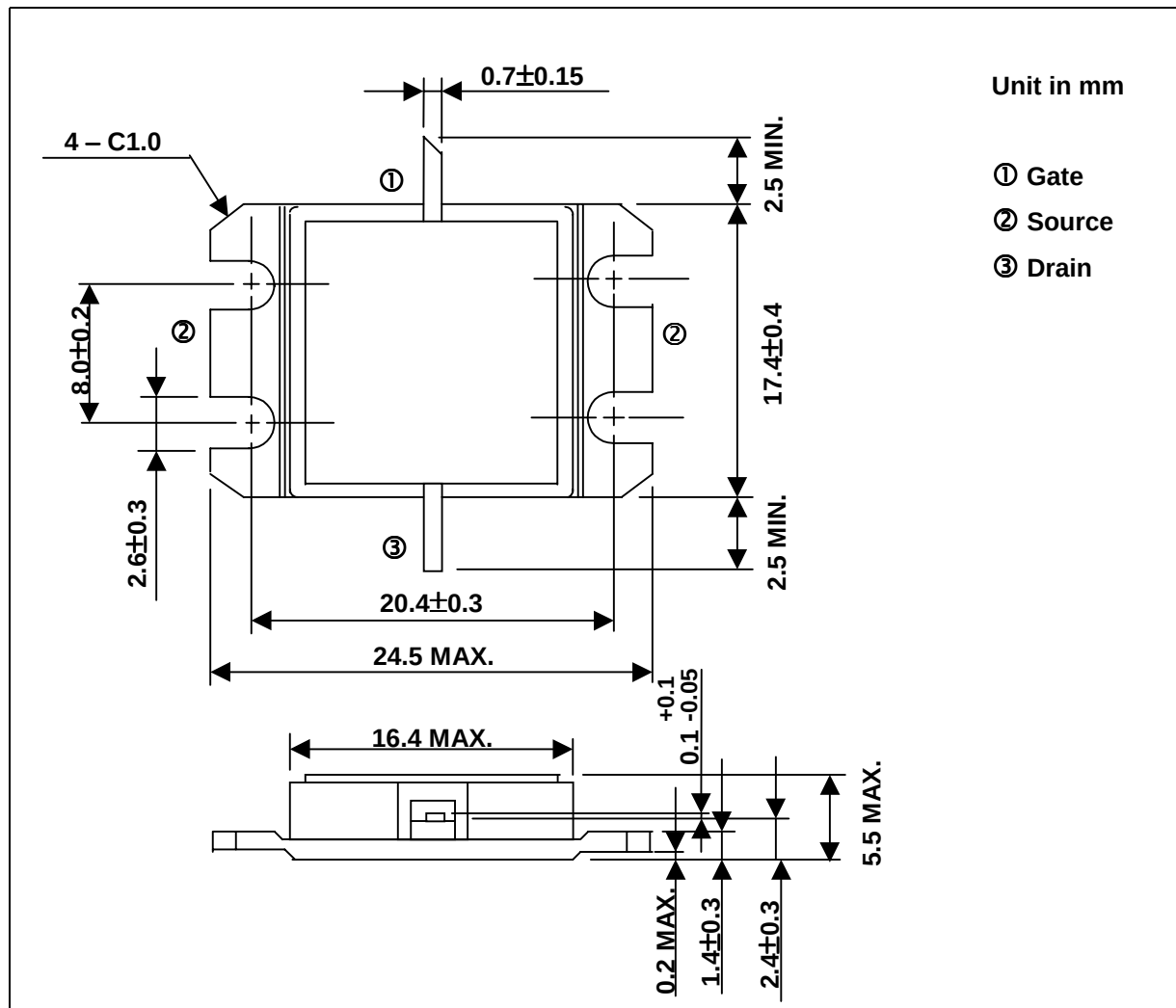
CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 4.0A	mS	—	2500	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 40mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	7.2	10.0
Gate-Source Breakdown Voltage	VGSO	IGS= -140μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	2.0	2.4

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

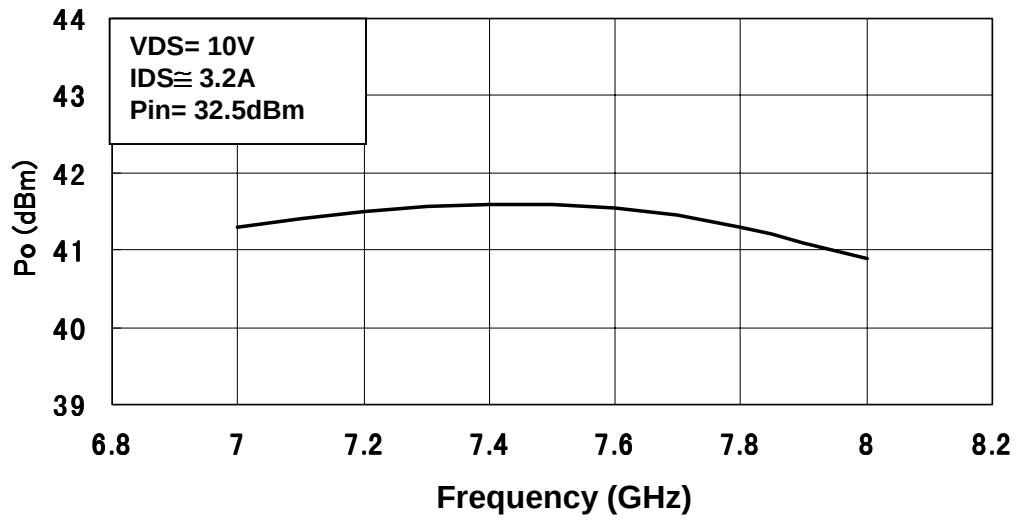
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	10.0
Total Power Dissipation (Tc= 25 °C)	PT	W	62.5
Channel Temperature	Tch	°C	175
Storage	Tstg	°C	-65 ~ +175

PACKAGE OUTLINE (2-16G1B)**HANDLING PRECAUTIONS FOR PACKAGED TYPE**

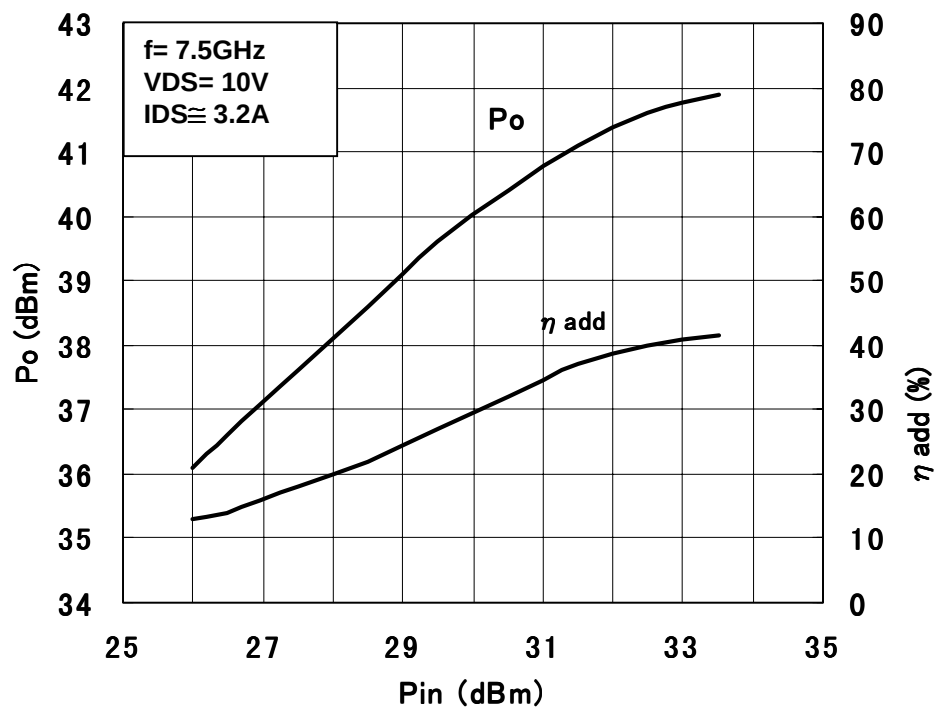
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

RF PERFORMANCES

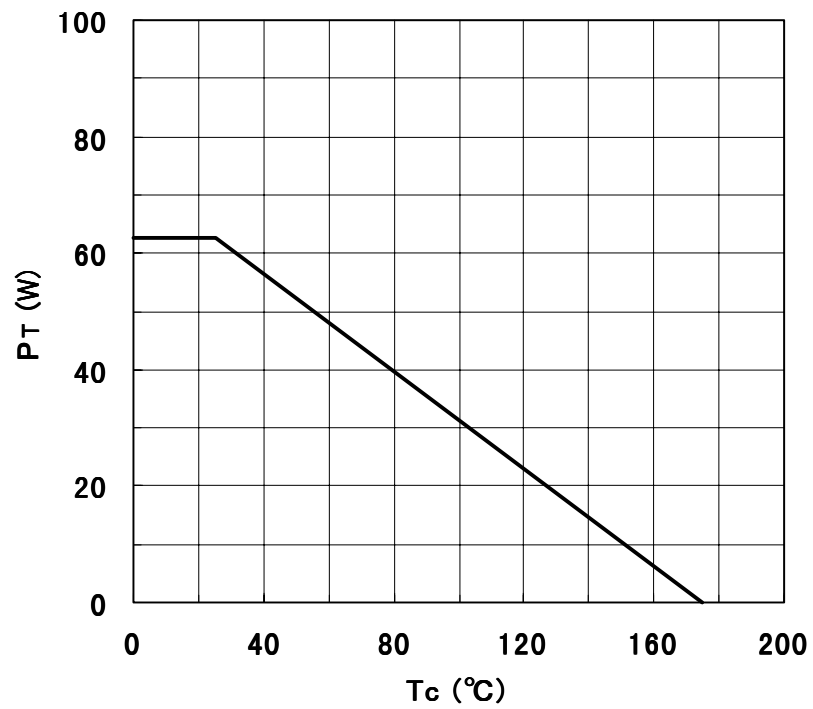
Output Power vs. Frequency



Output Power vs. Input Power



POWER DISSIPATION vs. CASE TEMPERATURE

IM₃ vs. OUTPUT POWER CHARACTERISTICS