

FEATURES

■ **HIGH POWER**

P1dB=42.5dBm at 7.1GHz to 7.9GHz

■ **HIGH GAIN**

G1dB= 8.5dB 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	41.5	42.5	—
Power Gain at 1dB Compression Point	G1dB		dB	7.5	8.5	—
Drain Current	IDS1		A	—	4.4	5.0
Gain Flatness	ΔG		dB	—	—	±0.6
Power Added Efficiency	ηadd		%	—	35	—
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po= 31.5dBm (Single Carrier Level)	dBc	-44	-47	—
Drain Current	IDS2		A	—	4.4	5.0
Channel Temperature Rise	ΔTch	VDS X IDS X Rth(c-c)	°C	—	—	80

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

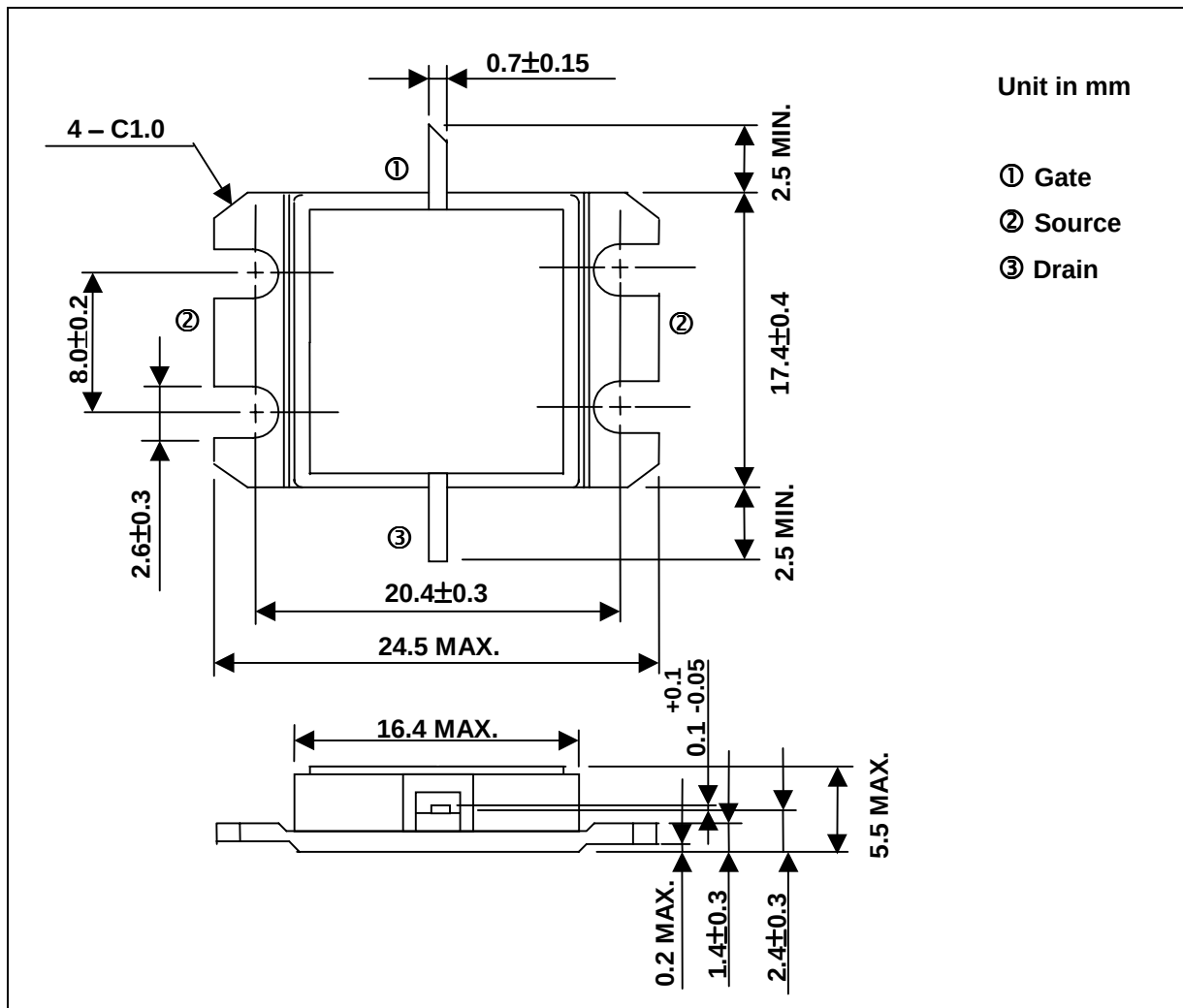
CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 6.0A	mS	—	3600	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 60mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	10.5	14.0
Gate-Source Breakdown Voltage	VGSO	IGS= -200μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.5	1.8

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

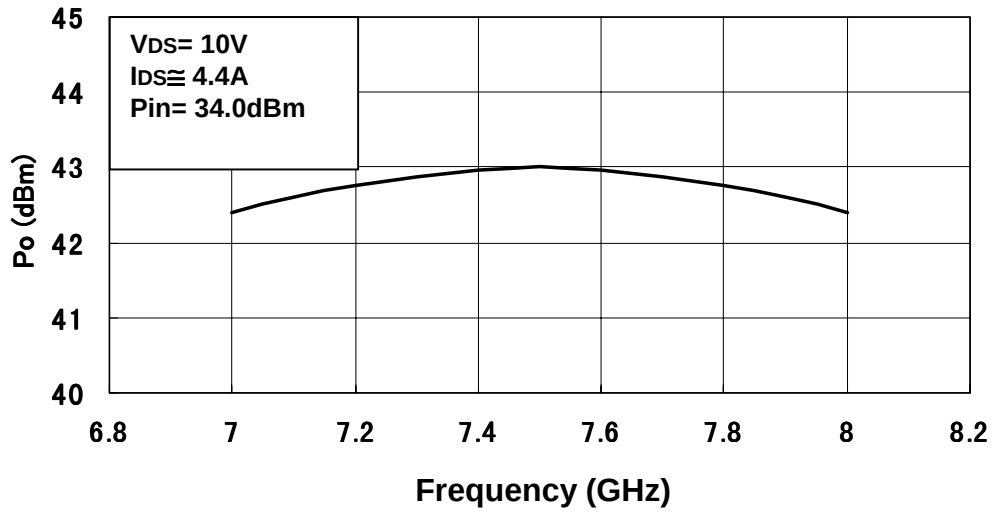
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	14
Total Power Dissipation (Tc= 25 °C)	PT	W	75
Channel Temperature	Tch	°C	175
Storage	Tstg	°C	-65 ~ +175

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

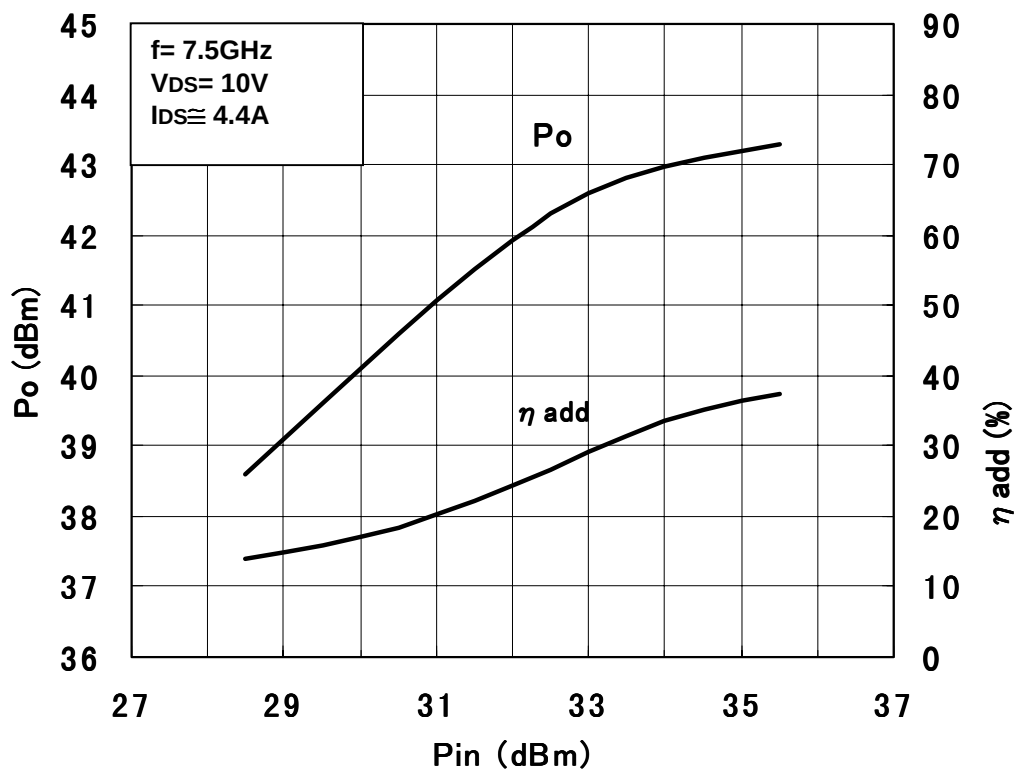
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

RF PERFORMANCES

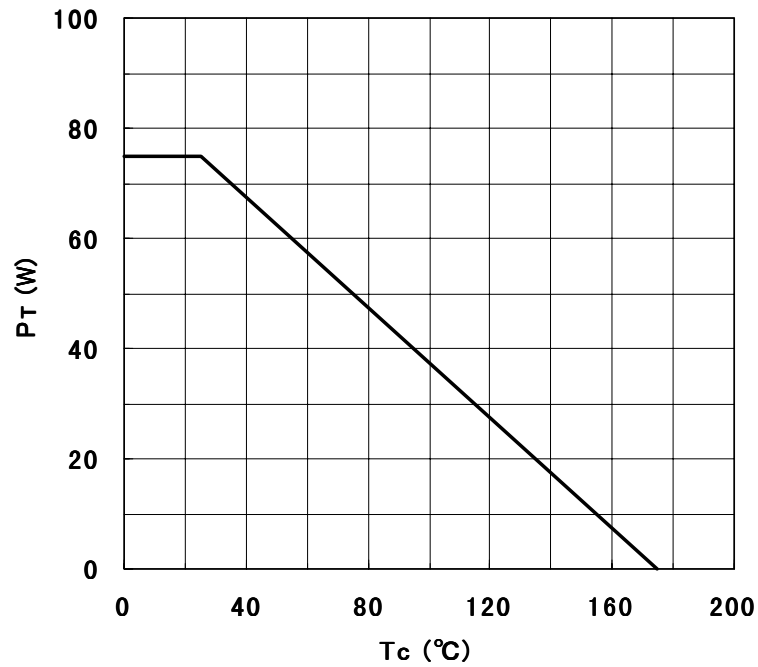
Output Power vs. Frequency



Output Power vs. Input Power



POWER DISSIPATION vs. CASE TEMPERATURE

IM₃ vs. OUTPUT POWER CHARACTERISTICS