

FEATURES

■ HIGH POWER

P1dB=42.5dBm at 14.0GHz to 14.5GHz

■ HIGH GAIN

G1dB=6.0dB at 14.0GHz to 14.5GHz

■ LOW INTERMODULATION DISTORTION

IM3(Min.)=-25dBc at Po=36dBm Single Carrier Level

■ 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= 9V IDSQ≒4.4A f = 14.0 to 14.5GHz	dBm	42.0	42.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	5.0	6.0	—
Drain Current	IDS1		A	—	5.5	6.0
Power Added Efficiency	ηadd		%	—	28	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po= 36.0dBm (Single Carrier Level)	dBc	-25	—	—
Drain Current	IDS2		A	—	5.5	6.0
Channel Temperature Rise	ΔTch	(VDS X IDS + Pin - P1dB) X Rth(c-c)	°C	—	—	100

Recommended gate resistance(Rg) : Rg= 100 Ω(MAX.)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

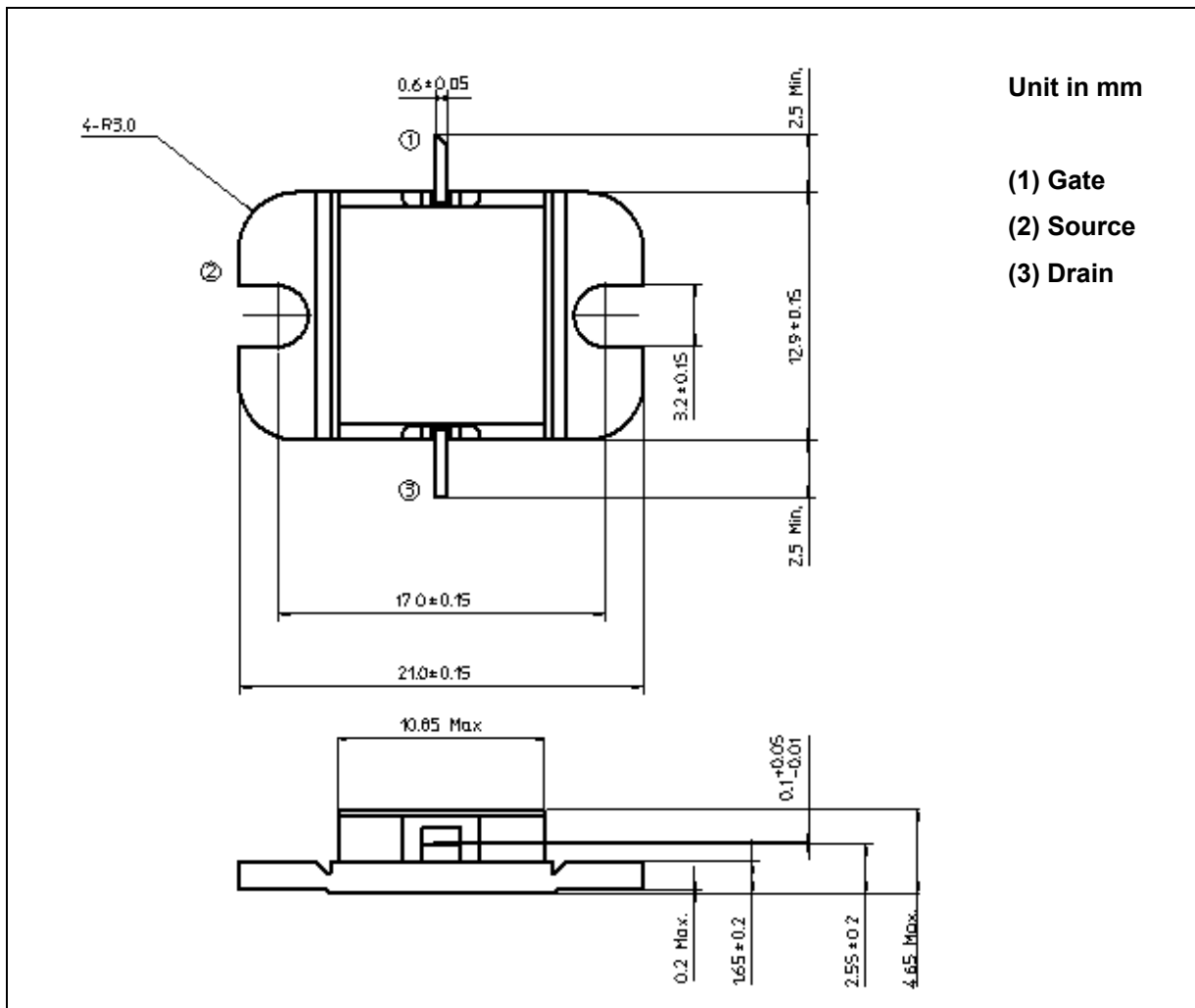
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 4.8A	mS	—	4500	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 145mA	V	-0.7	-2.8	-4.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	10.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -145μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.8	2.3

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

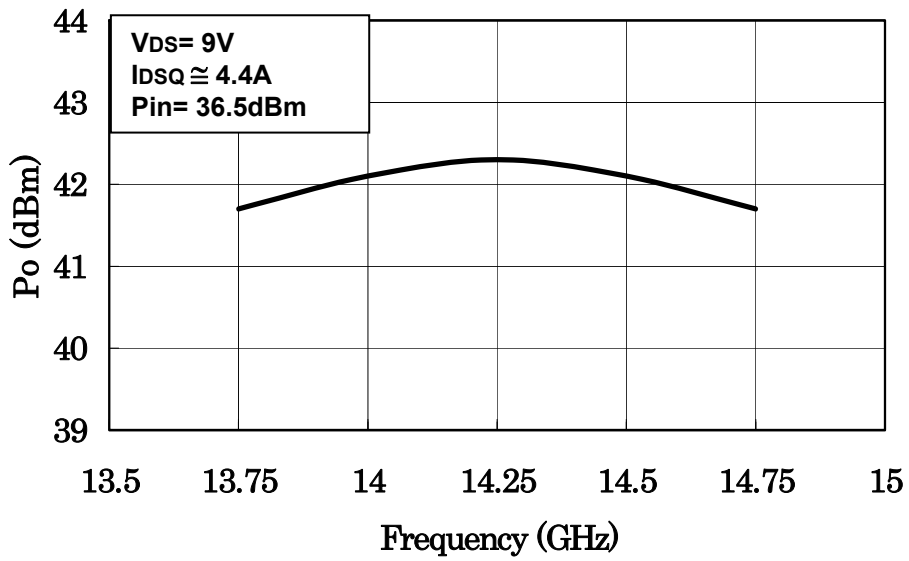
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V _{DS}	V	15
Gate-Source Voltage	V _{GS}	V	-5
Drain Current	I _{DS}	A	11.5
Total Power Dissipation (T _c = 25 °C)	P _T	W	65
Channel Temperature	T _{ch}	°C	175
Storage	T _{stg}	°C	-65 to +175

PACKAGE OUTLINE (2-11C1B)**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

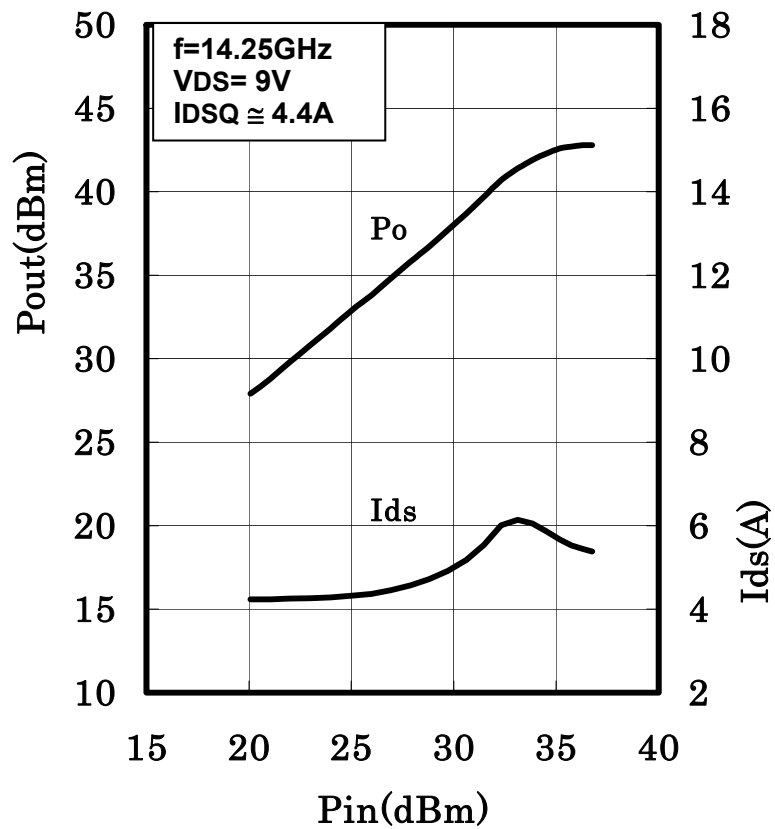
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

RF PERFORMANCE

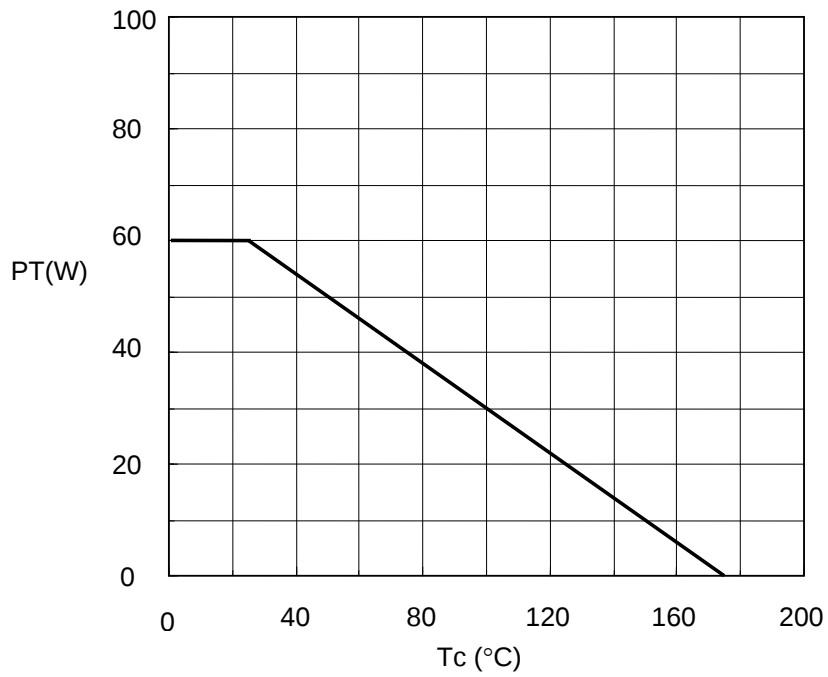
Output Power vs. Frequency



Output power vs. Input power



Power Dissipation vs. Case Temperature



IM3 vs. Output Power Characteristics

