

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.)=-30dBc at Po=36dBm Single Carrier Level

■ 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= 9V IDSQ=4.4A f = 14.0 – 14.5GHz	dBm	42.0	42.5	—
Power Gain at 1dB Compression Point	G1dB		dB	5.0	6.0	—
Drain Current	IDS1		A	—	5.5	6.0
Power Added Efficiency	η_{add}		%	—	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	ΔT_{ch}	VDS X IDS X Rth(c-c)	°C	—	—	100

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

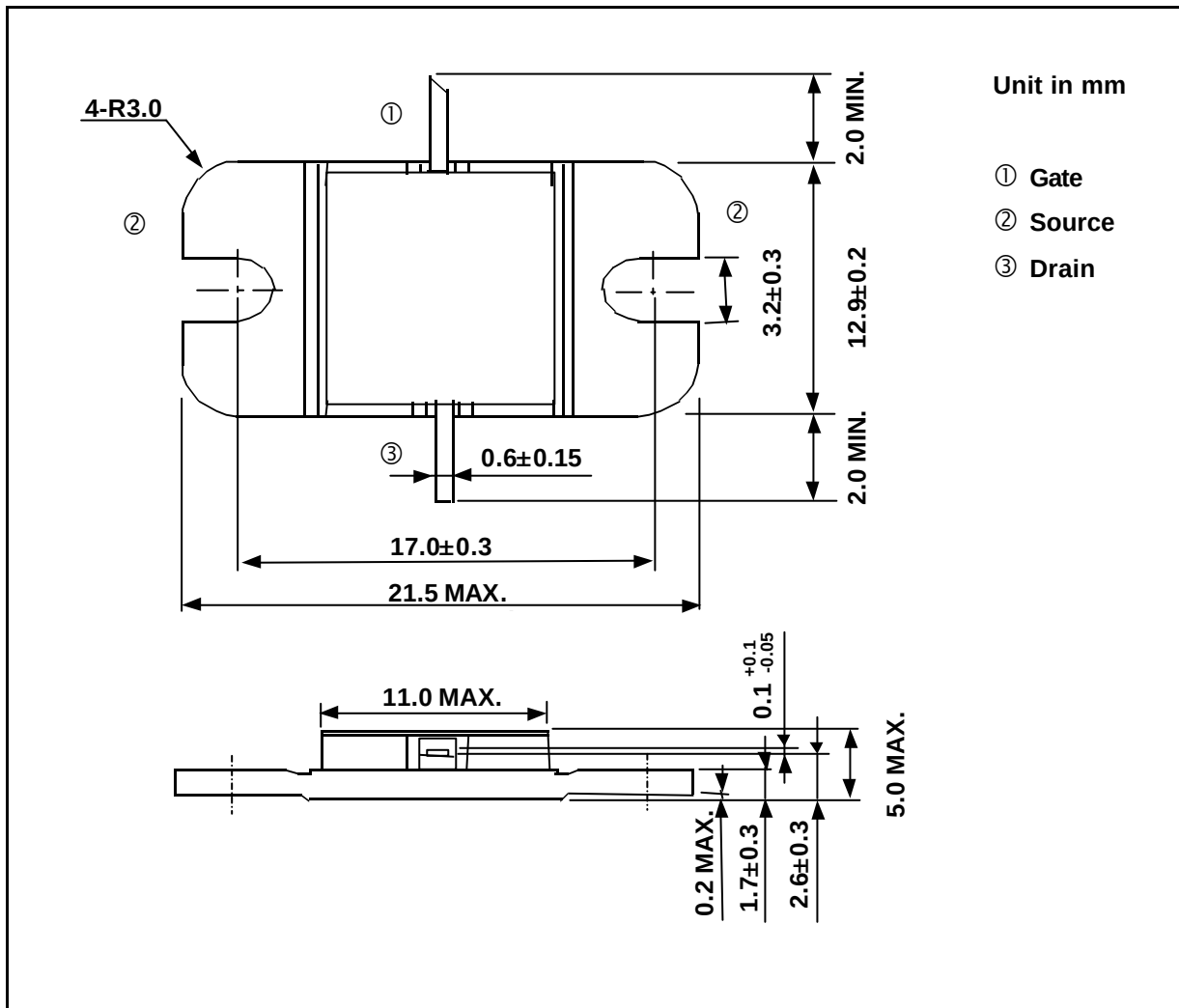
CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 4.8A	mS	—	6000	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 145mA	V	-0.7	-1.6	-2.3
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	10.0	11.5
Gate-Source Breakdown Voltage	VGSO	IGS= -145μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.8	2.3

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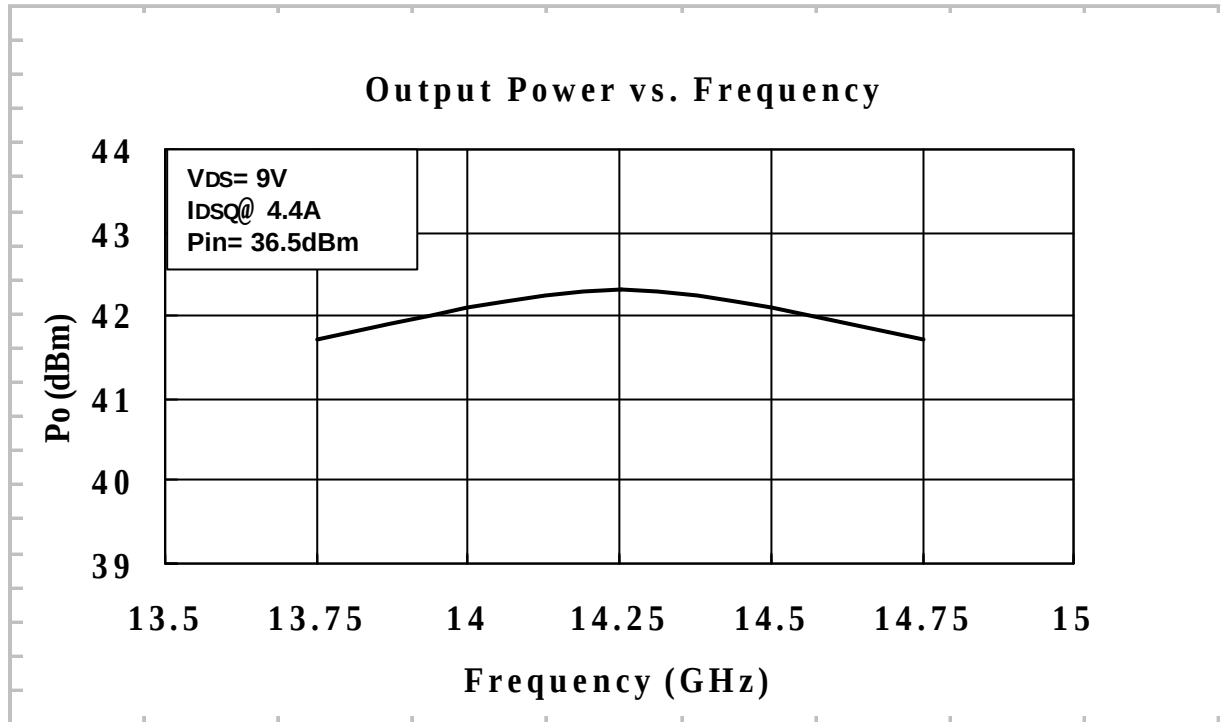
ABSOLUTE MAXIMUM RATINGS (Ta= 25° C)

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	60.0
Channel Temperature	T _{ch}	°C	175
Storage	T _{stg}	°C	-65 ~ +175

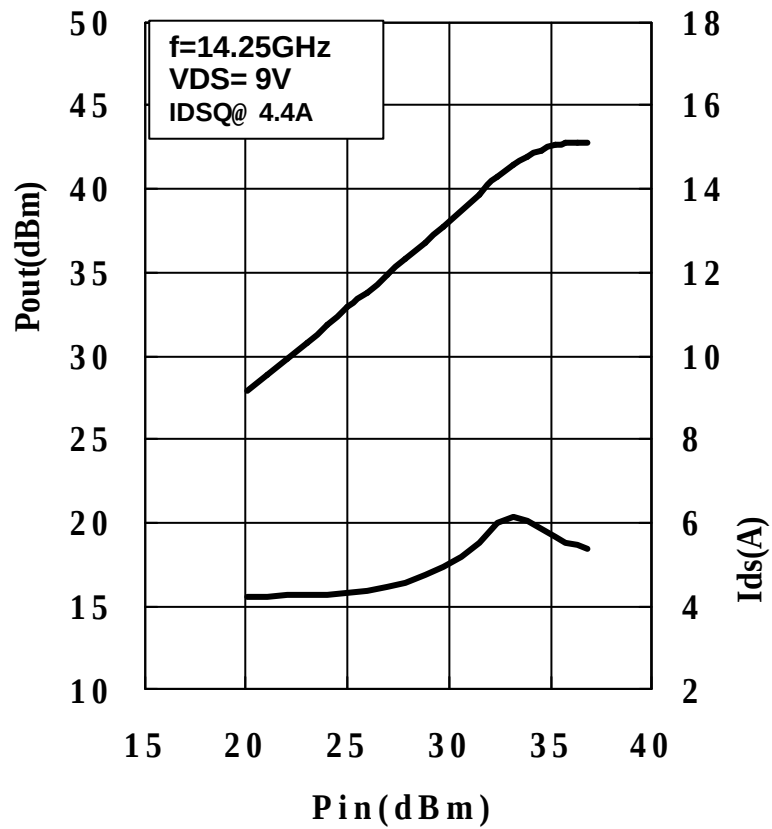
PACKAGE OUTLINE (2-11C1B)**HANDLING PRECAUTIONS FOR PACKAGED TYPE**

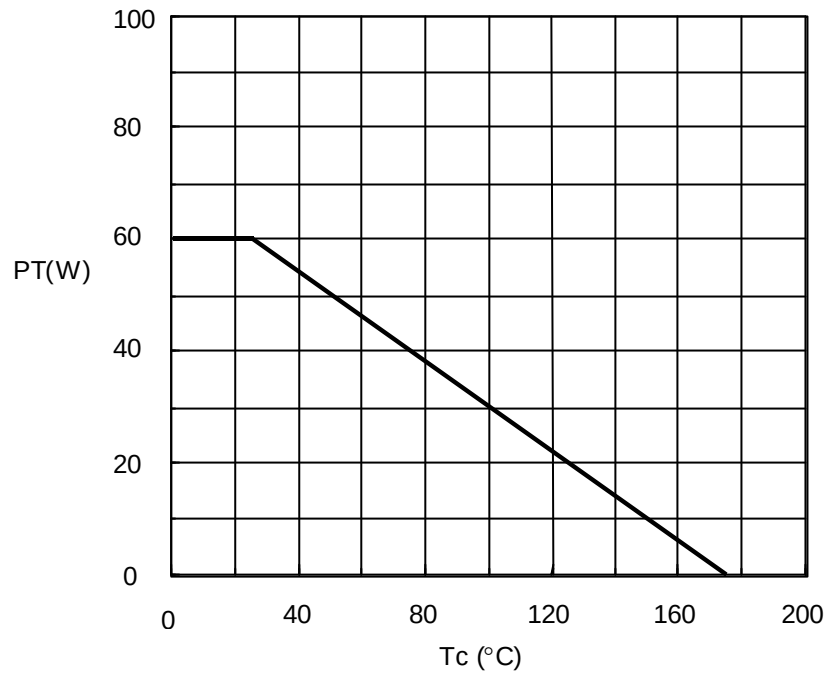
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

RF PERFORMANCES



Out put power vs. In put power



POWER DISSIPATION vs. CASE TEMPERATURE**IM3 vs. OUTPUT POWER CHARACTERISTICS**