

**FEATURES**

- **LOW INTERMODULATION DISTORTION**  
 IM3=-45 dBc at Pout= 28.0dBm  
 Single Carrier Level
- **HIGH POWER**  
 P1dB=39.5 dBm at 14.0 GHz to 14.5 GHz
- **HIGH GAIN**  
 G1dB=5.0 dB at 14.0 GHz to 14.5 GHz
- **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 f= 14.0 to 14.5GHz	dBm	38.5	39.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	4.0	5.0	—
Drain Current	IDS1		A	—	3.4	4.4
Power Added Efficiency	$\eta_{add}$		%	—	20	—
3 <sup>rd</sup> Order Intermodulation Distortion	IM3	Two-Tone Test Po=28. 0dBm	dBc	-42	-45	—
Drain Current	IDS2	(Single Carrier Level)	A	—	3.4	4.4
Channel Temperature Rise	$\Delta T_{ch}$	(VDS X IDS + Pin - P1dB) X Rth(c-c)	°C	—	—	80

**Recommended gate resistance(Rg) : Rg= 150  $\Omega$ (MAX.)**

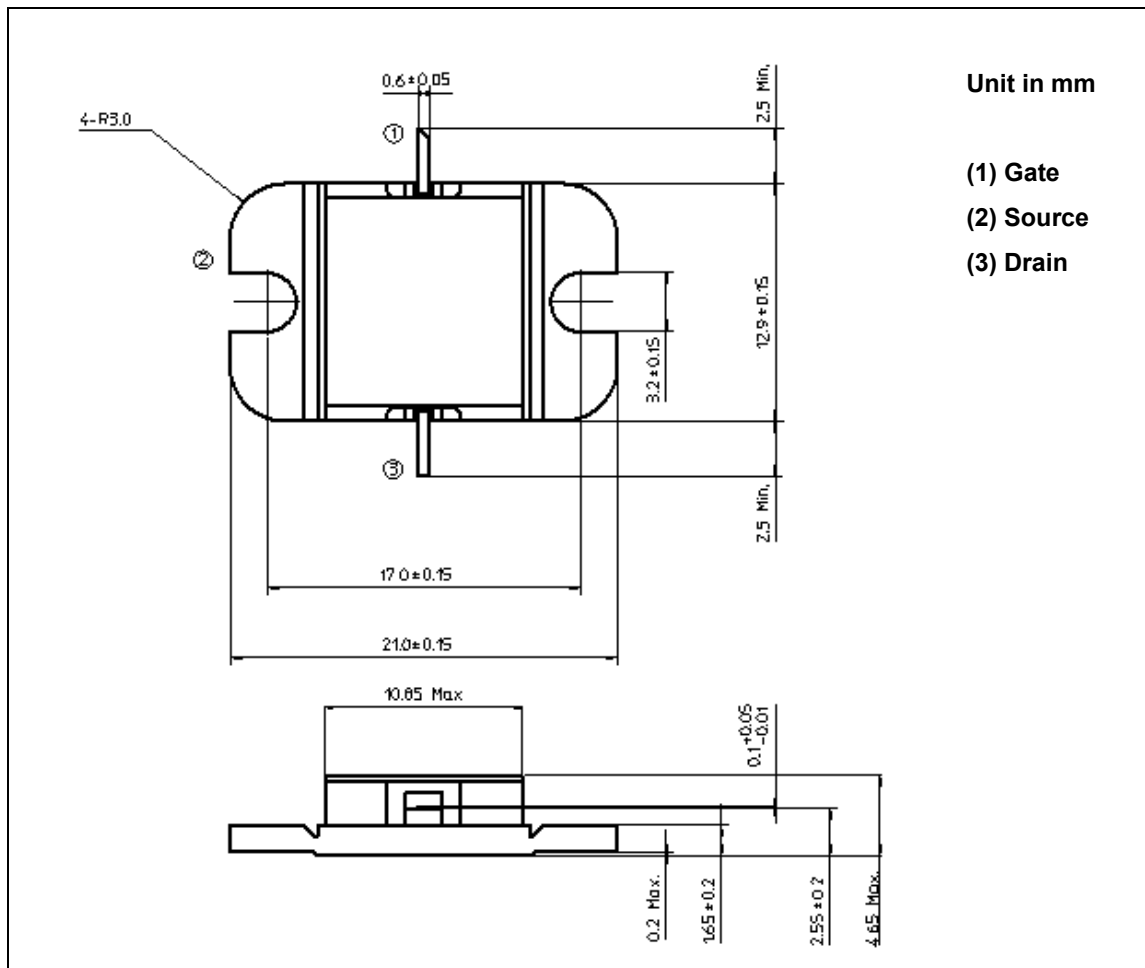
**ELECTRICAL CHARACTERISTICS ( Ta= 25°C )**

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 4.0 A	mS	—	2400	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 120mA	V	-2.0	-3.5	-5.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	8.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -120 $\mu$ A	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.6	2.5

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**ABSOLUTE MAXIMUM RATINGS ( Ta= 25°C )**

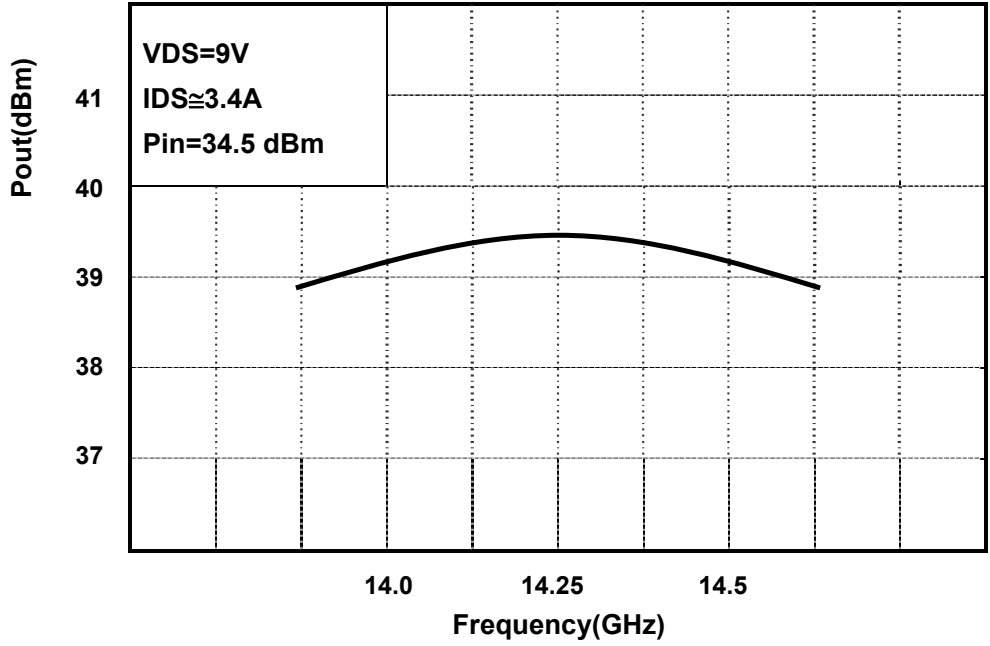
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	10.4
Total Power Dissipation (Tc= 25 °C)	PT	W	60
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

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

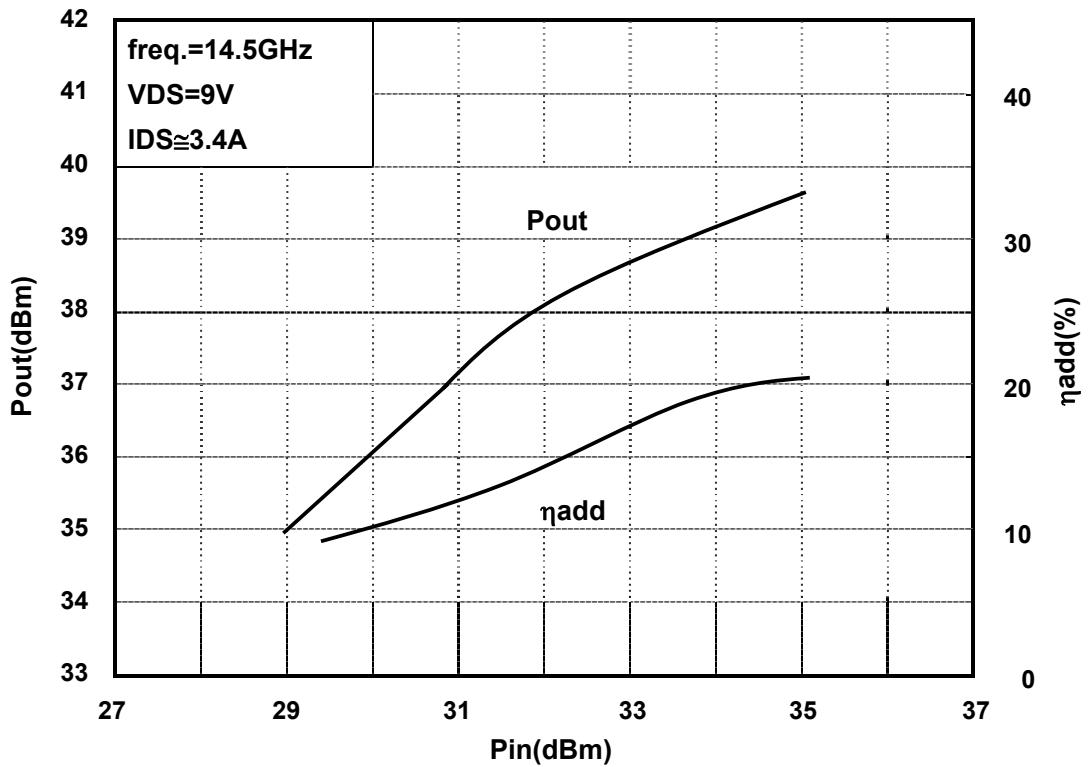
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

**RF PERFORMANCE**

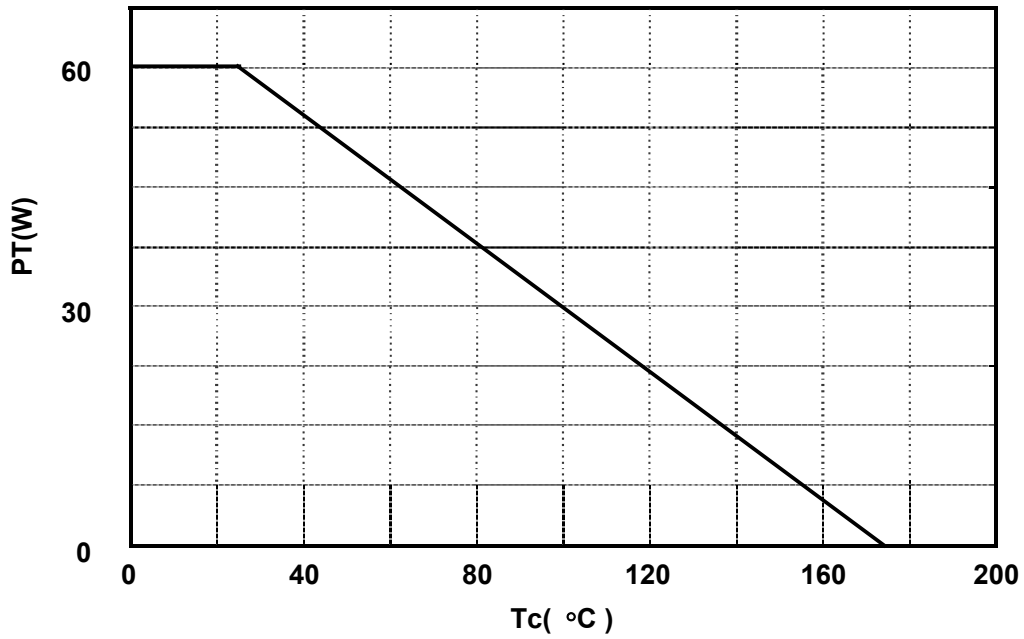
**Output Power (Pout) vs. Frequency**



**Output Power(Pout) vs. Input Power(Pin)**



Power Dissipation(PT) vs. Case Temperature(Tc)



IM3 vs. Output Power Characteristics

