

**FEATURES**

- **BROAD BAND INTERNALLY MATCHED FET**
- **HIGH POWER**  
P1dB= 45.0dBm at 7.7GHz to 8.5GHz
- **HIGH GAIN**  
G1dB= 6.0dB at 7.7GHz to 8.5GHz
- **LOW INTERMODULATION DISTORTION**  
IM3= -45dBc at Pout= 34.5dBm  
Single Carrier Level
- **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= 10V IDSset= 7.0A f = 7.7 to 8.5GHz	dBm	44.0	45.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	5.6	6.0	—
Drain Current	IDS1		A	—	7.0	8.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	34	—
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po= 34.5dBm, Δf= 5MHz (Single Carrier Level)	dBc	-42	-45	—
Drain Current	IDS2		A	—	7.0	8.0
Channel Temperature Rise	ΔTch	(VDS X IDS + Pin – P1dB) X Rth(c-c)	°C	—	—	100

**Recommended Gate Resistance(Rg): 28 Ω**

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

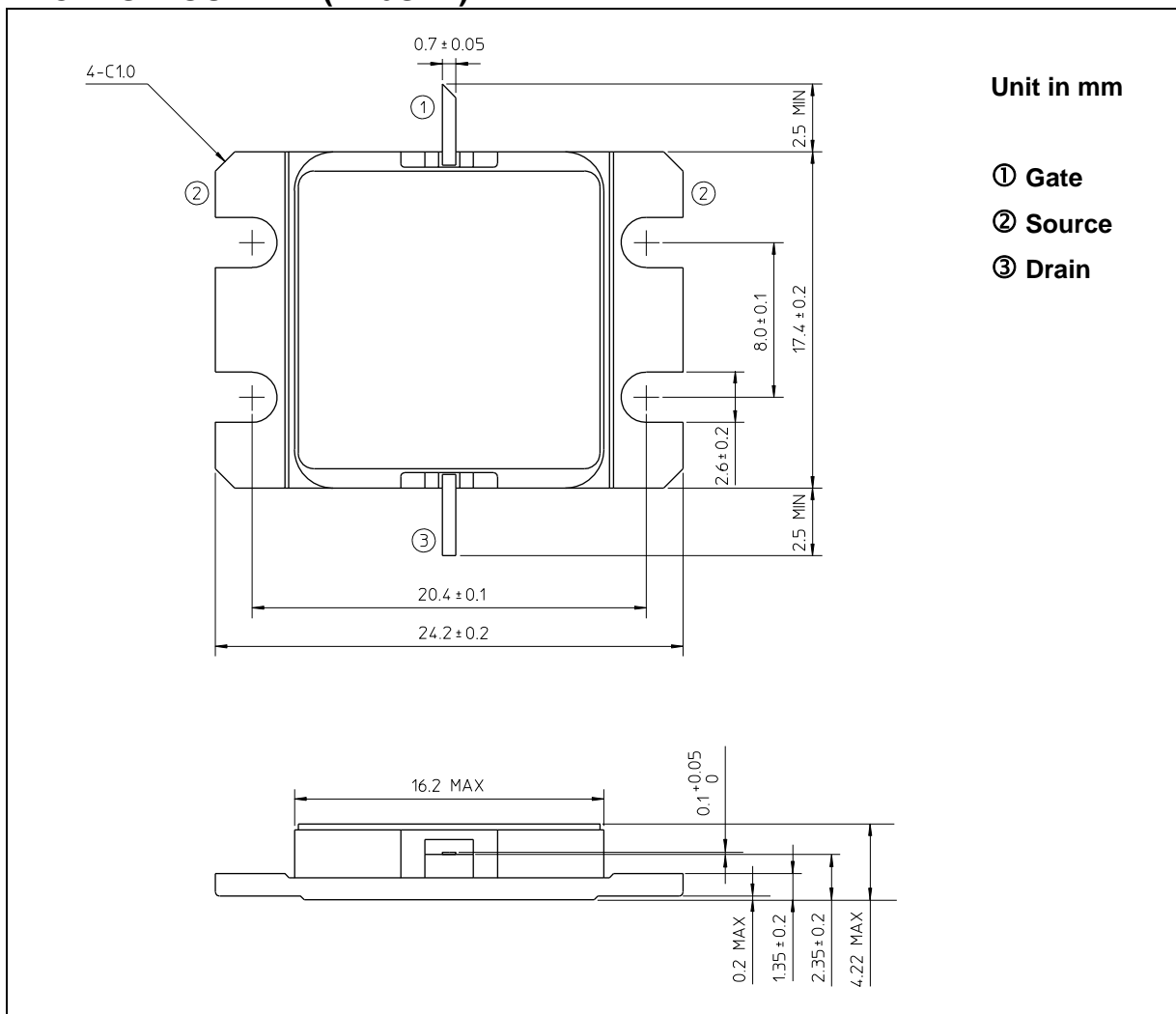
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 10A	S	—	6.3	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 100mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	18	—
Gate-Source Breakdown Voltage	VGSO	IGS= -350μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.0	1.3

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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	20
Total Power Dissipation (Tc= 25°C)	PT	W	115.4
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

**PACKAGE OUTLINE (2-16G1B)**

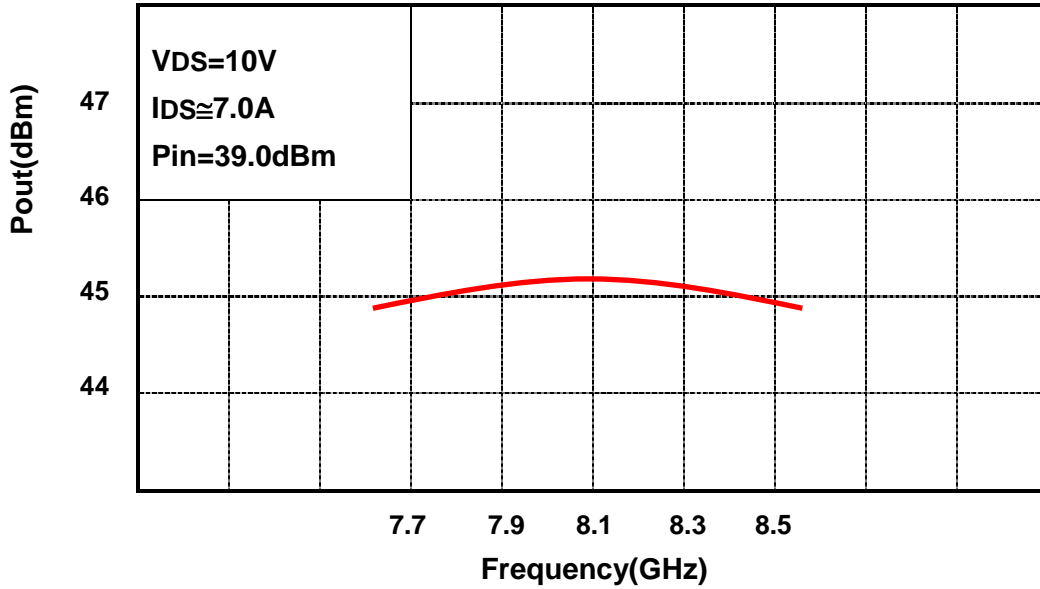


**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

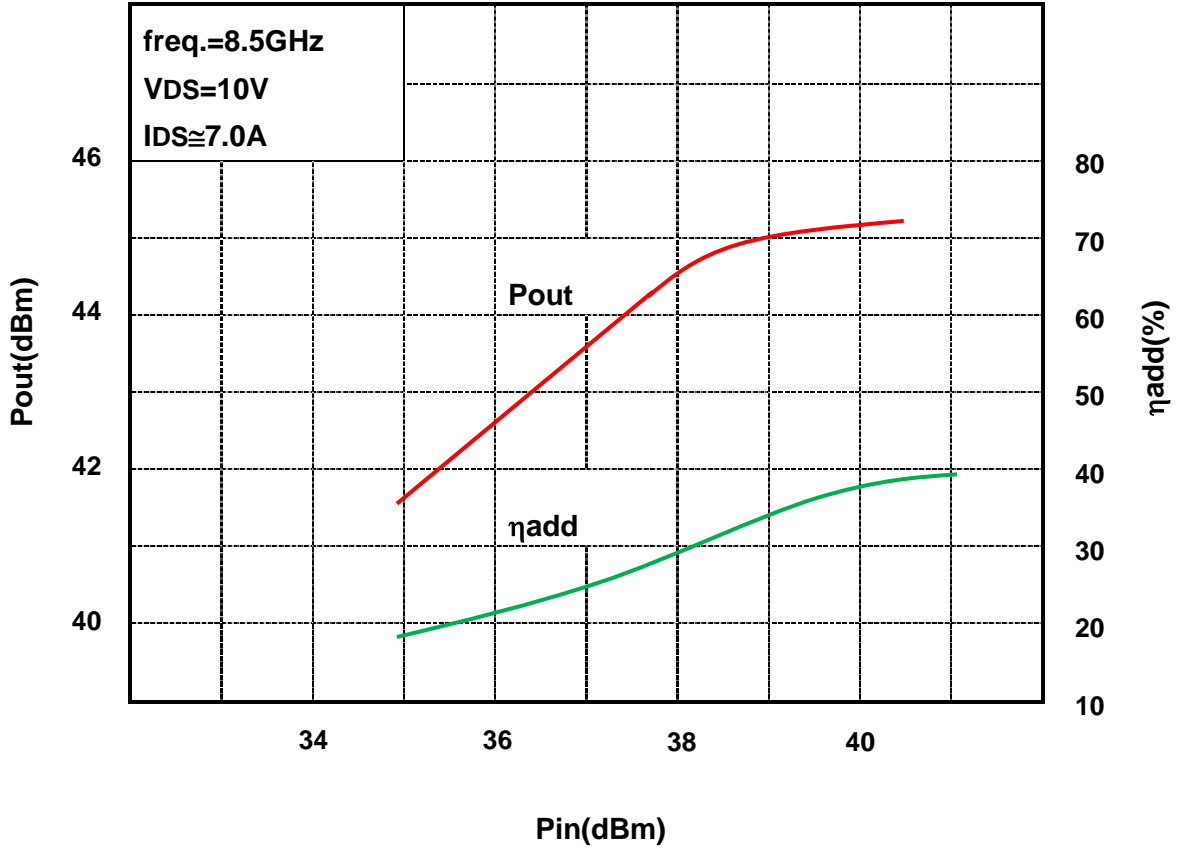
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C.

**RF PERFORMANCE**

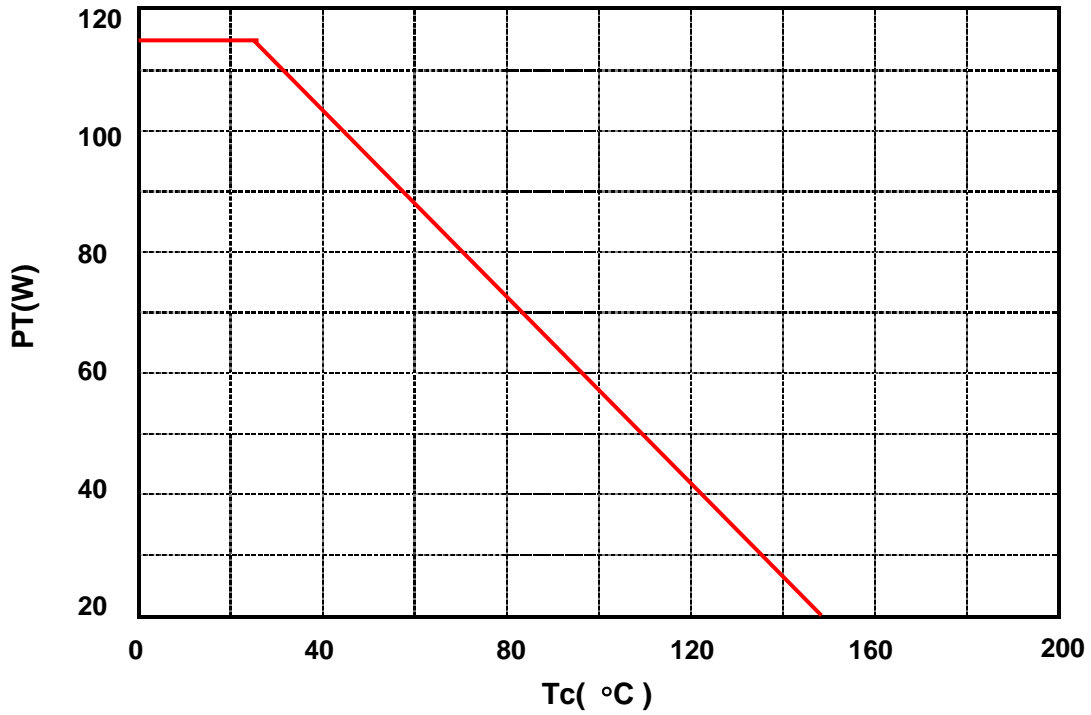
**Output Power (Pout) vs. Frequency**



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



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



**IM3 vs. Output Power Characteristics**

