

**FEATURES**

n **HIGH POWER**

P1dB=38.5dBm at 7.7GHz to 8.5GHz

n **HIGH GAIN**

G1dB= 8.5dB at 7.7GHz to 8.5GHz

n **BROAD BAND INTERNALLY MATCHED FET**

n **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 f = 7.7 to 8.5GHz	dBm	37.5	38.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	7.5	8.5	—
Drain Current	IDS1		A	—	1.6	1.9
Gain Flatness	ΔG		dB	—	—	±0.6
Power Added Efficiency	ηadd		%	—	38	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po= 27.5dBm	dBc	-44	-47	—
Drain Current	IDS2	(Single Carrier Level)	A	—	1.6	1.9
Channel Temperature Rise	ΔTch	(VDS X IDS +Pin-P1dB) X Rth(c-c)	°C	—	—	80

**Recommended gate resistance(Rg) : Rg= 150 W(MAX.)**

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

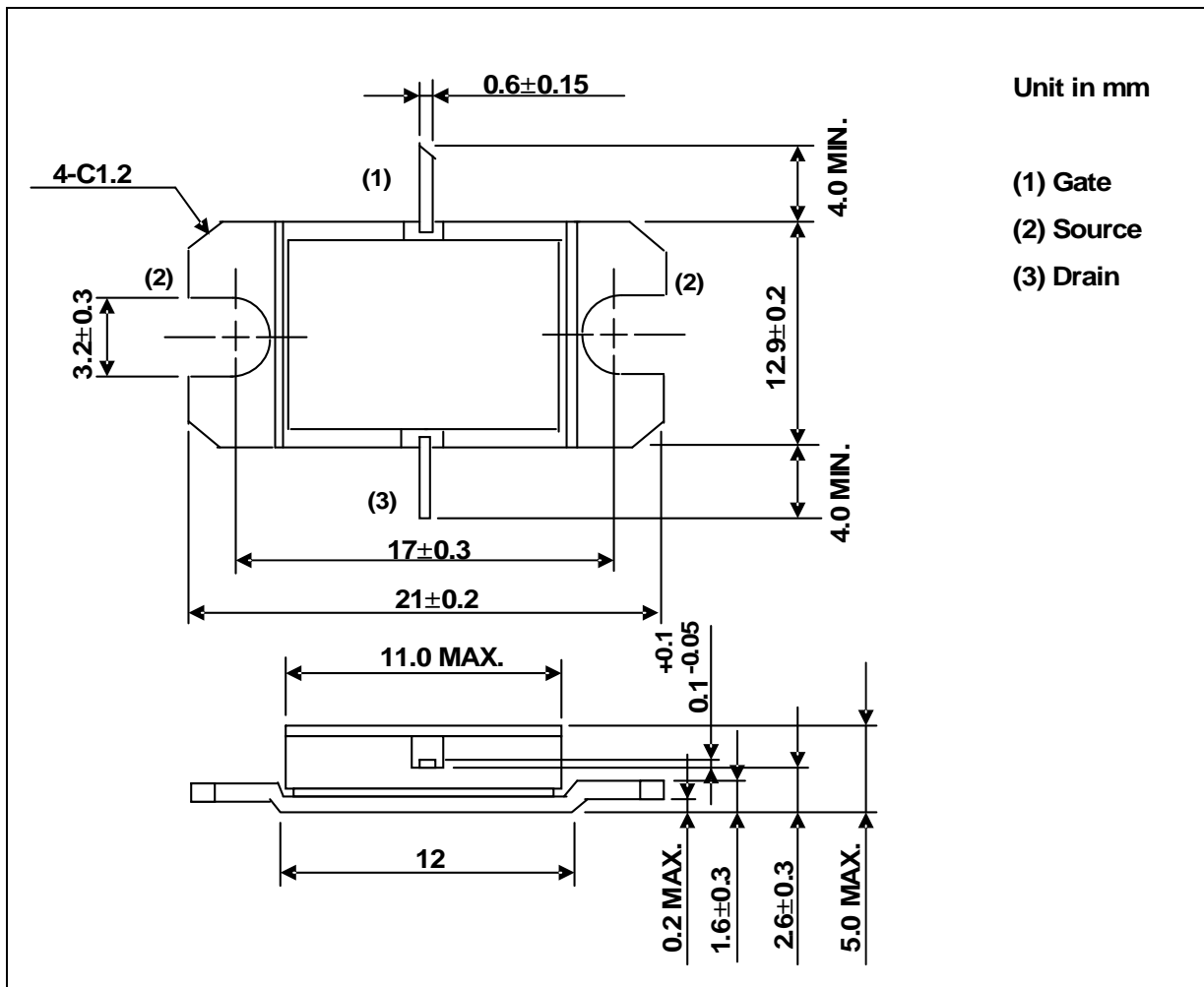
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 2.0A	mS	—	1240	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 20mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	3.6	—
Gate-Source Breakdown Voltage	VGSO	IGS= -70μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	3.8	4.6

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

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V <sub>DS</sub>	V	15
Gate-Source Voltage	V <sub>GS</sub>	V	-5
Drain Current	I <sub>DS</sub>	A	5.0
Total Power Dissipation (T <sub>c</sub> = 25 °C)	PT	W	32.6
Channel Temperature	T <sub>ch</sub>	°C	175
Storage	T <sub>stg</sub>	°C	-65 to +175

**PACKAGE OUTLINE (2-11D1B)**

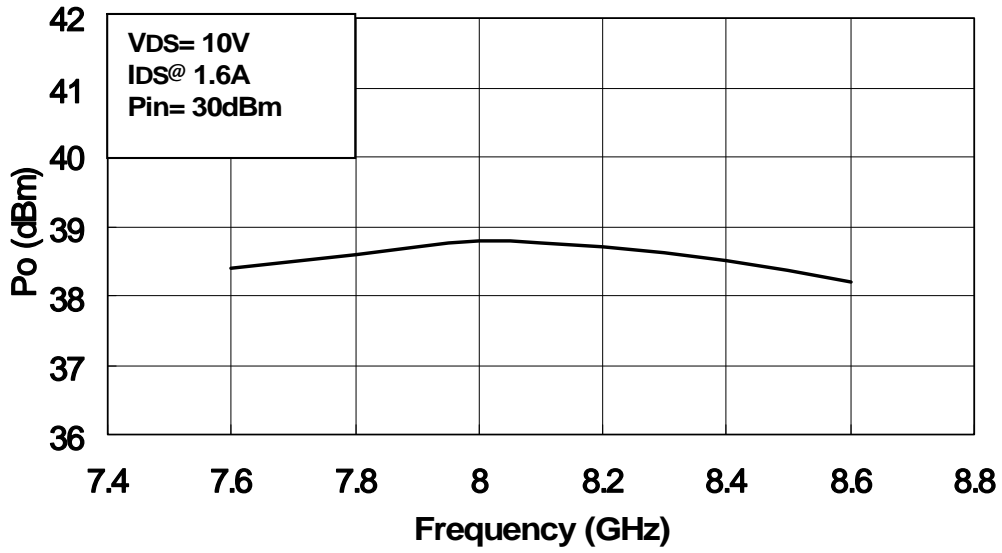


**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

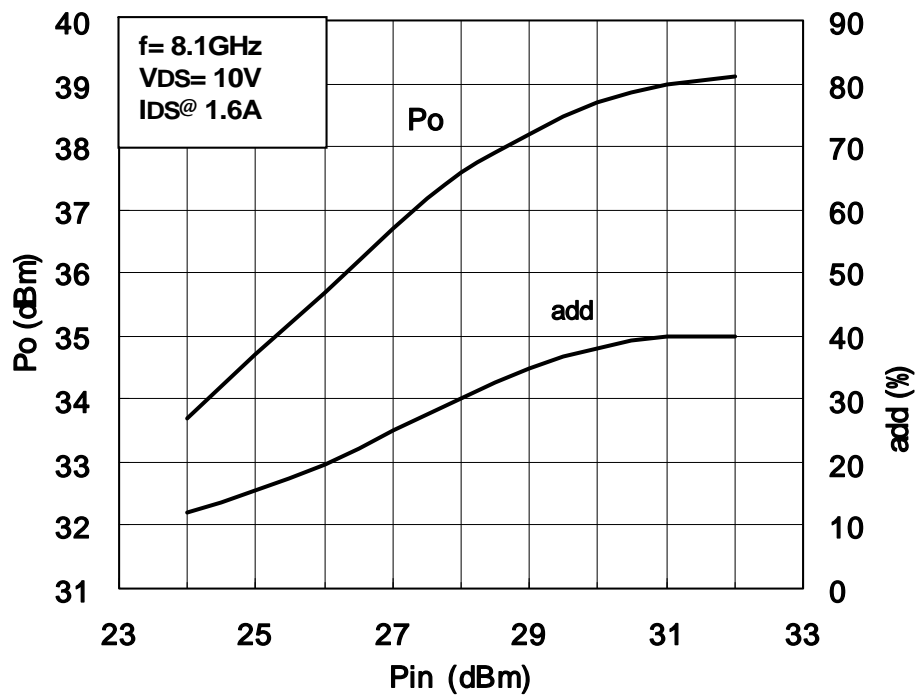
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

RF PERFORMANCE

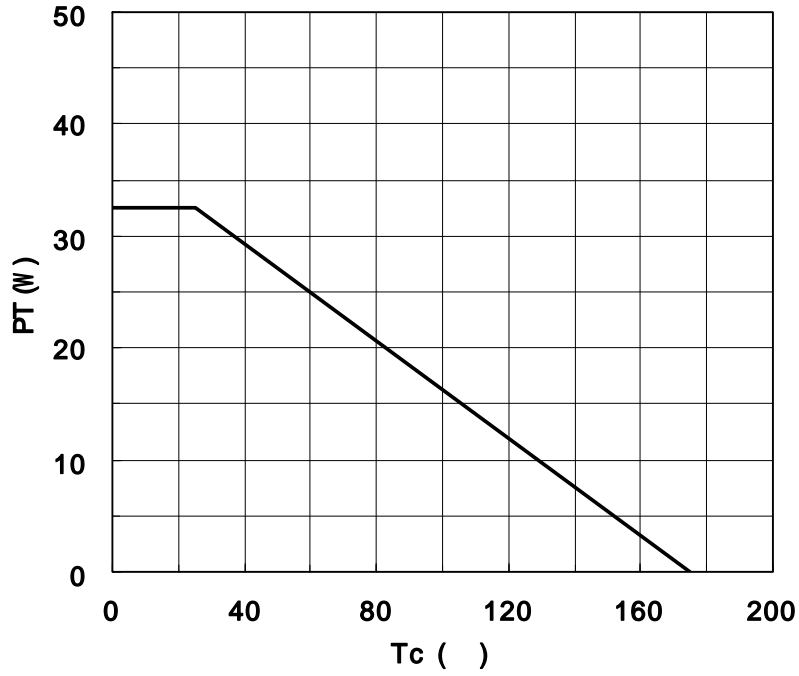
Output Power vs. Frequency



Output Power vs. Input Power



**Power Dissipation vs. Case Temperature**



**IM3 vs. Output Power Characteristics**

