

**FEATURES**

**n LOW INTERMODULATION DISTORTION**

IM3=-45 dBc at Pout= 35dBm  
 Single Carrier Level

**n HIGH POWER**

P1dB=45.5dBm at 5.0GHz to 5.3GHz

**n HIGH GAIN**

G1dB=9.0dB at 5.0GHz to 5.3GHz

**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= 5.0 to 5.3GHz	dBm	45.0	45.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	8.0	9.0	—
Drain Current	IDS1		A	—	8.0	9.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	39	—
3 <sup>rd</sup> Order Intermodulation Distortion	IM3	Two-Tone Test Po=35.0dBm	dBc	-42	-45	—
Drain Current	IDS2	(Single Carrier Level)	A	—	8.0	9.0
Channel Temperature Rise	ΔTch	(VDS X IDS + Pin - P1dB) X Rth(c-c)	°C	—	—	100

**Recommended Gate Resistance(Rg) : 100 W (Max.)**

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

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 10.5A	mS	—	6500	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 140mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	20.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -420μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.0	1.3

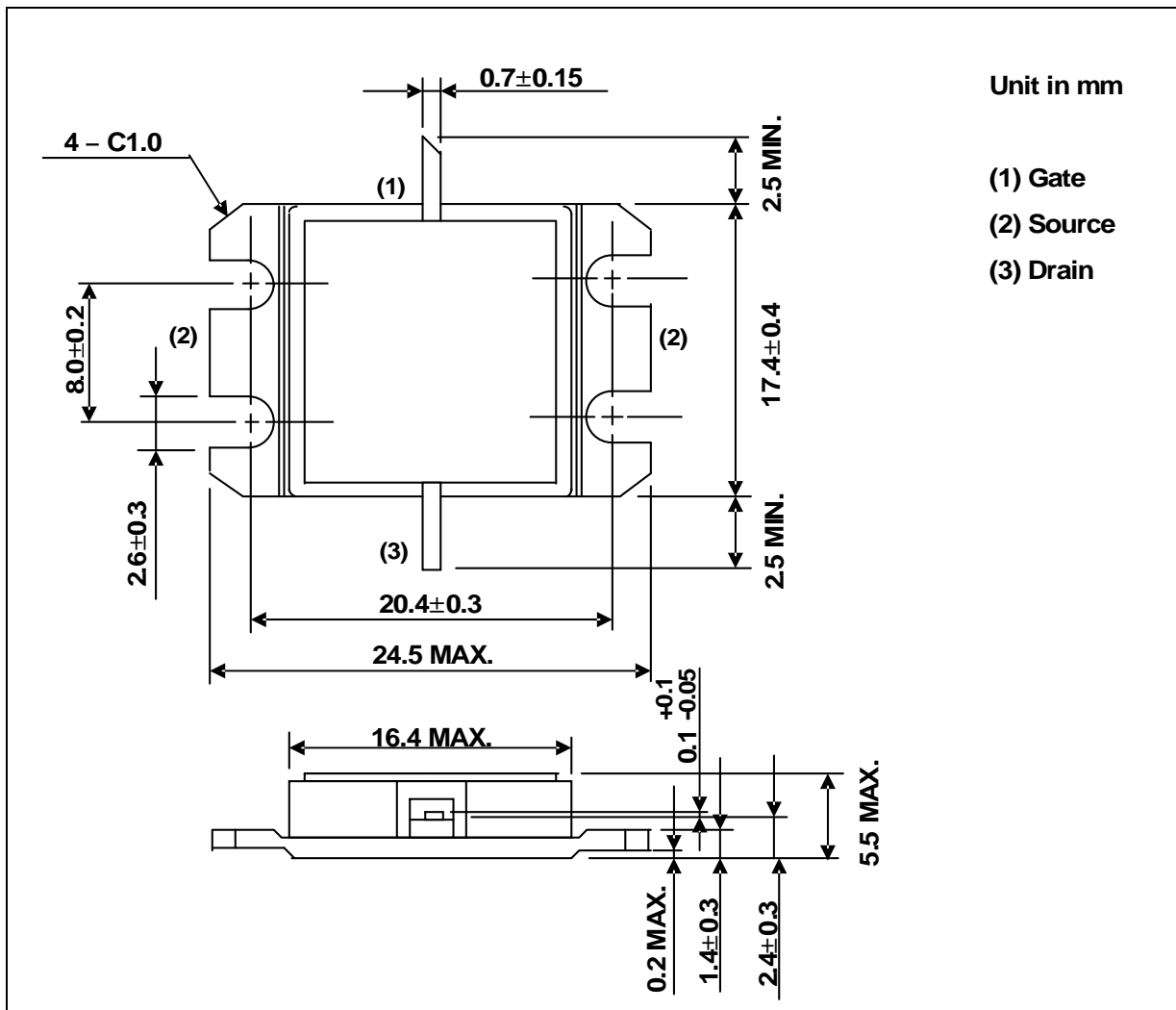
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**ABSOLUTE MAXIMUM RATINGS ( Ta= 25°C )**

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V <sub>DS</sub>	V	15
Gate-Source Voltage	V <sub>GS</sub>	V	-5
Drain Current	I <sub>DS</sub>	A	20.0
Total Power Dissipation (T <sub>c</sub> = 25 °C)	PT	W	115.4
Channel Temperature	T <sub>ch</sub>	°C	175
Storage Temperature	T <sub>stg</sub>	°C	-65 to +175

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

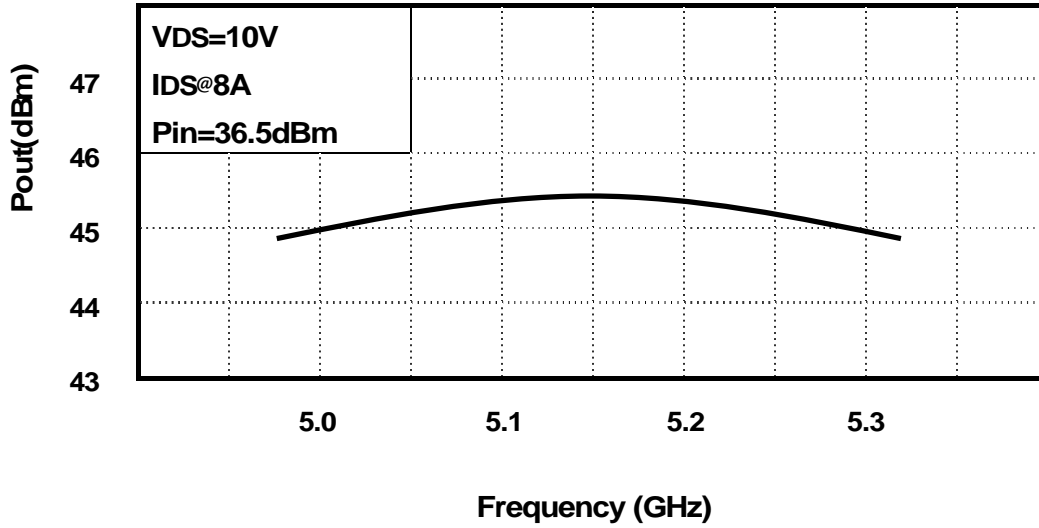


**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

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

## RF PERFORMANCE

Output Power (Pout) vs. Frequency



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

