

#### FEATURES

- LOW INTERMODULATION DISTORTION  
IM3=-45dBc at Po=31.5dBm  
Single Carrier Level
- HIGH POWER  
P1dB=42.5dBm at 5.9GHz to 6.4GHz
- HIGH GAIN  
G1dB=8.0dB at 5.9GHz to 6.4GHz
- BROAD BAND INTERNALLY MATCHED
- HERMETICALLY SEALED PACKAGE

#### RF PERFORMANCE SPECIFICATIONS (Ta=25 °C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P <sub>1dB</sub>	V <sub>DS</sub> =10V f = 5.9- 6.4GHz	dBm	42.5	—	—
Power Gain at 1dB Gain Compression Point	G <sub>1dB</sub>		dB	7.0	8.0	—
Drain Current	I <sub>DS</sub>		A	—	4.4	5.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	η <sub>add</sub>		%	—	34	—
3 <sup>rd</sup> Order Intermodulation Distortion	IM <sub>3</sub>	Note 1	dBc	-42	-45	—
Channel Temperature Rise	ΔT <sub>ch</sub>	V <sub>DS</sub> ×I <sub>DS</sub> ×R <sub>th(c-c)</sub>	°C	—	—	80

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

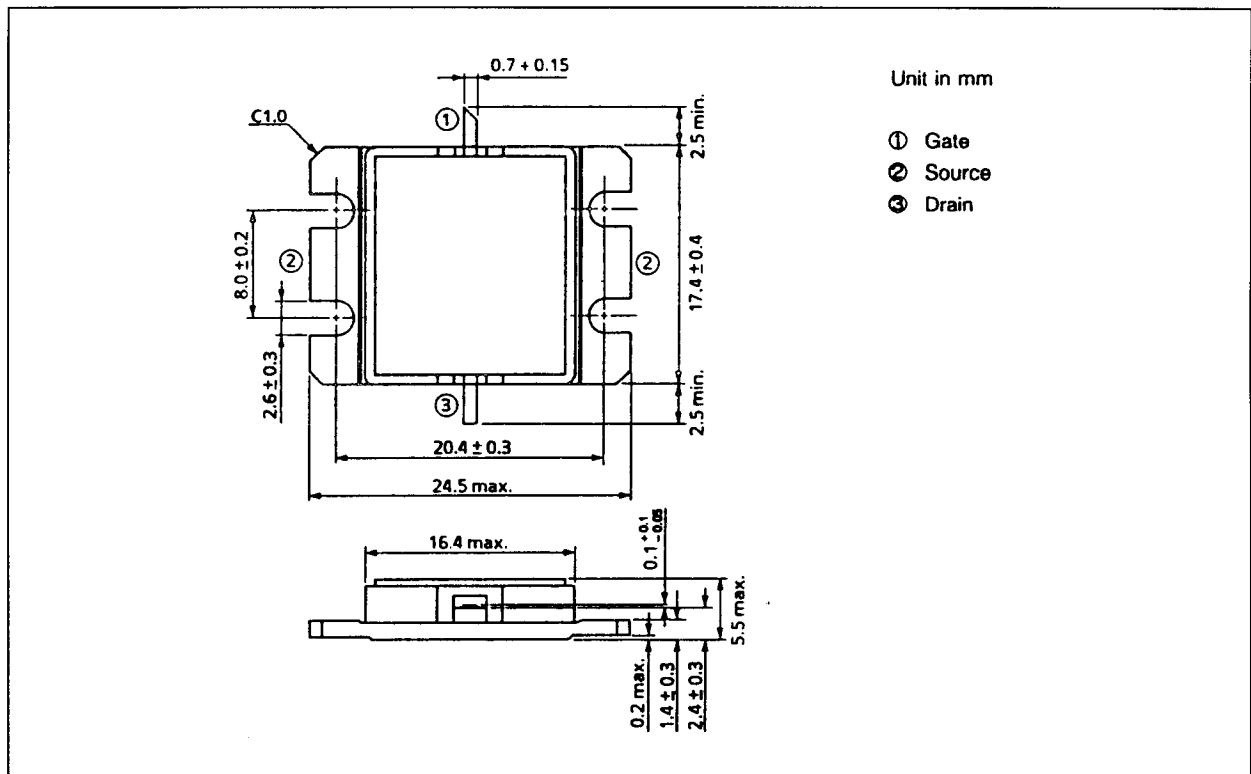
CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	V <sub>DS</sub> =3V I <sub>DS</sub> =6.0A	mS	—	3600	—
Pinch-off Voltage	V <sub>GSoff</sub>	V <sub>DS</sub> =3V I <sub>DS</sub> =60mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =3V V <sub>GS</sub> =0V	A	—	10.5	14.0
Gate-Source Breakdown Voltage	V <sub>GS0</sub>	I <sub>GS</sub> = -200μA	V	-5	—	—
Thermal Resistance	R <sub>th (c-c)</sub>	Channel to Case	°C/W	—	1.5	2.0

Note 1: 2 tone test Pout=31.5dBm Single Carrier Level

Recommended Gate Resistance (Rg): Rg=Rg1(50Ω) + Rg2(50Ω)=100Ω (MAX).

**ABSOLUTE MAXIMUM RATINGS(Ta=25°C)**

CHARACTERISTICS	SYMBOL	RATING	UNIT
Drain – Source Voltage	$V_{DS}$	15	V
Gate – Source Voltage	$V_{GS}$	-5	V
Drain Current	$I_{DS}$	14	A
Total Power Dissipation (Tc=25 °C)	Pt	75	W
Channel Temperature	Tch	175	°C
Storage Temperature	Tstg	-65 ~ +175	°C

**PACKAGE OUTLINE (2-16G1B)****HANDLING PRECAUTIONS FOR PACKAGED TYPE**

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

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