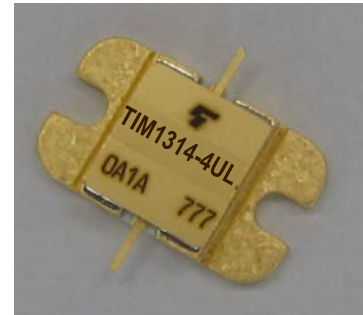


**Preliminary**

**FEATURES**

- **BROAD BAND INTERNALLY MATCHED FET**
- **HIGH POWER**  
P1dB= 36.5dBm at 13.75GHz to 14.5GHz
- **HIGH GAIN**  
G1dB= 8.0dB at 13.75GHz to 14.5GHz
- **LOW INTERMODULATION DISTORTION**  
IM3=-45dBc at Pout= 23.0dBm  
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 DSset= 1.0A f= 13.75 to 14.5GHz	dBm	35.5	36.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	7.0	8.0	—
Drain Current	IDS1		A	—	1.1	1.6
Power Added Efficiency	$\eta_{add}$		%	—	34	—
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po= 23.0dBm, $\Delta f$ = 5MHz (Single Carrier Level)	dBc	-42	-45	—
Drain Current	IDS2		A	—	1.1	1.6
Channel Temperature Rise	$\Delta T_{ch}$	(VDS X IDS + Pin - P1dB) X Rth(c-c)	°C	—	—	60

**Recommended Gate Resistance(Rg): 150  $\Omega$**

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

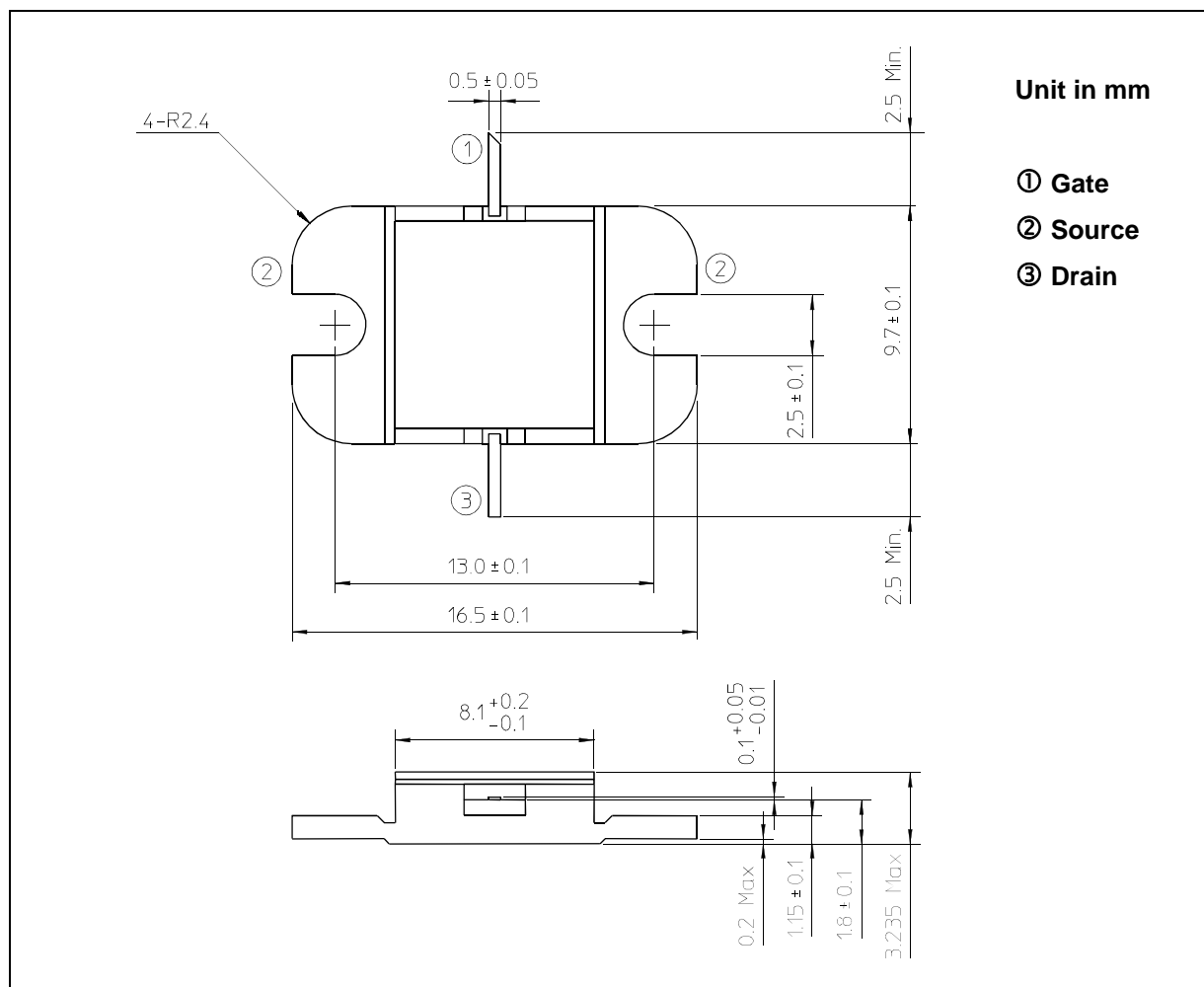
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 1.2A	S	—	1.2	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 40mA	V	-0.5	-2.0	-4.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	2.2	—
Gate-Source Breakdown Voltage	VGSO	IGS= -40 $\mu$ A	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	3.8	4.4

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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	3.3
Total Power Dissipation (Tc= 25°C)	PT	W	34.1
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

**PACKAGE OUTLINE (2-9D1B)**



**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.