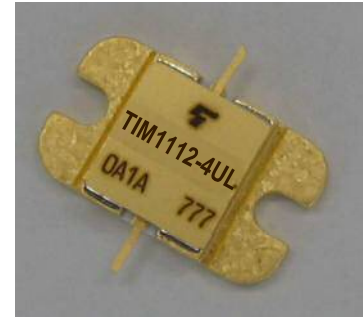


### FEATURES

- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER  
P1dB= 36.5dBm at 11.7GHz to 12.7GHz
- HIGH GAIN  
G1dB= 9.5dB at 11.7GHz to 12.7GHz
- LOW INTERMODULATION DISTORTION  
IM3(MIN.) = -42dBc at Pout= 24.0dBm (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 IDSset= 1.0A f=11.7 to 12.7 GHz	dBm	35.5	36.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	8.5	9.5	—
Drain Current	IDS1		A	—	1.1	1.6
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	36	—
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po= 24.0dBm, Δf= 5MHz (Single Carrier Level)	dBc	-42	-45	—
Drain Current	IDS2	(VDS X IDS + Pin – P1dB) X Rth(c-c)	A	—	1.1	1.6
Channel Temperature Rise	ΔTch		°C	—	—	60

Recommended Gate Resistance(Rg): 150 Ω

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

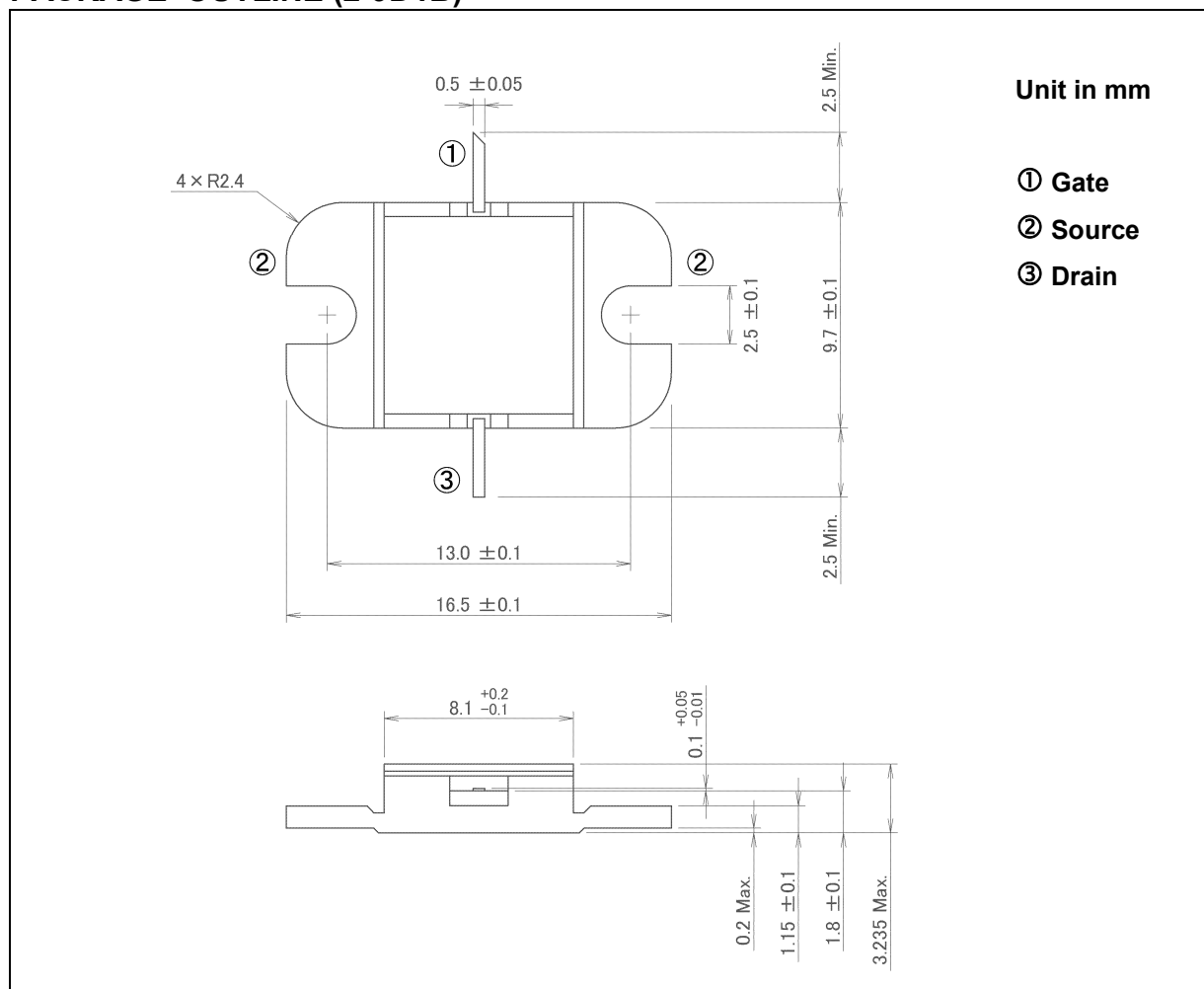
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 1.2A	S	—	1.2	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 40mA	V	-0.5	-2.0	-4.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	2.2	—
Gate-Source Breakdown Voltage	VGSO	IGS= -40μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel 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)**



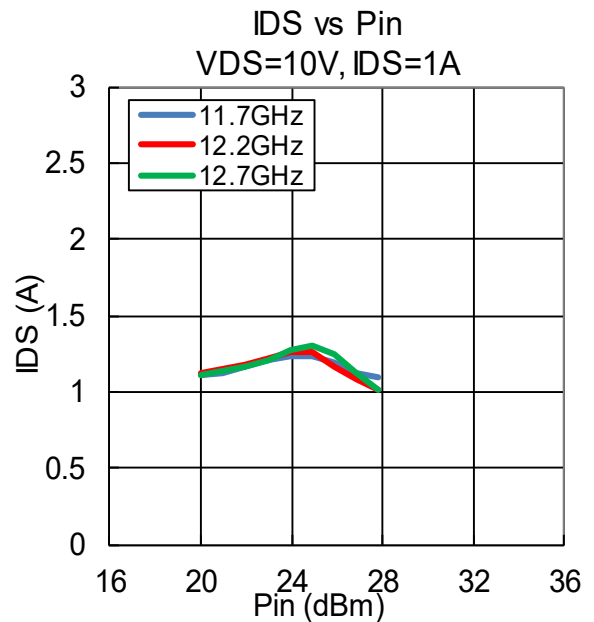
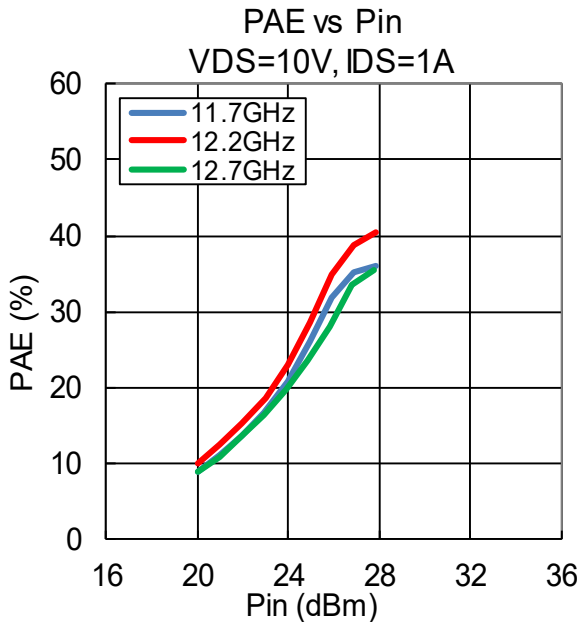
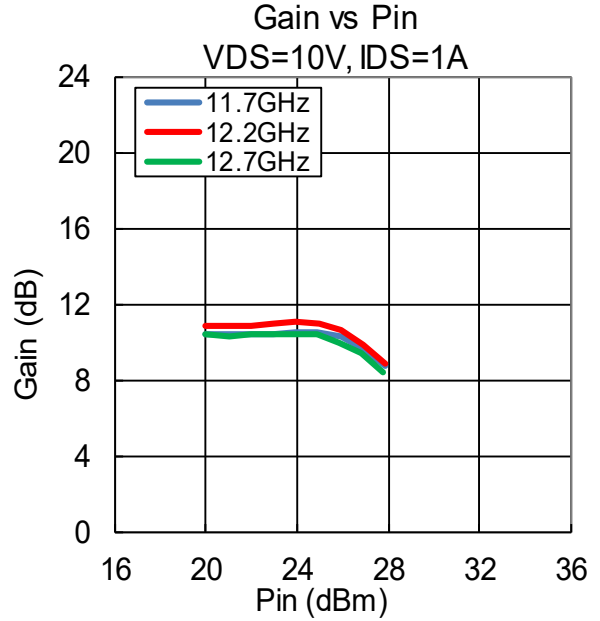
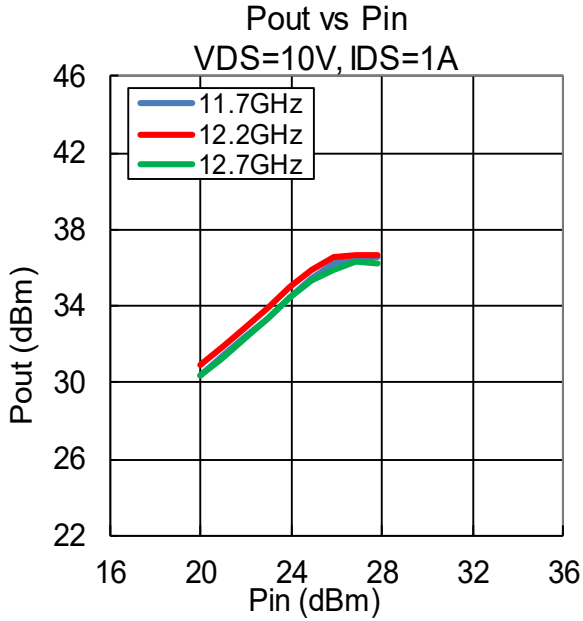
**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

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

**TYPICAL RF PERFORMANCE**

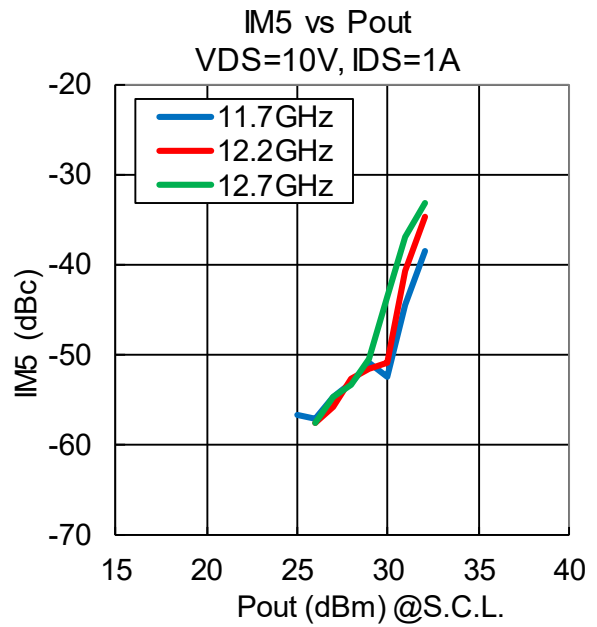
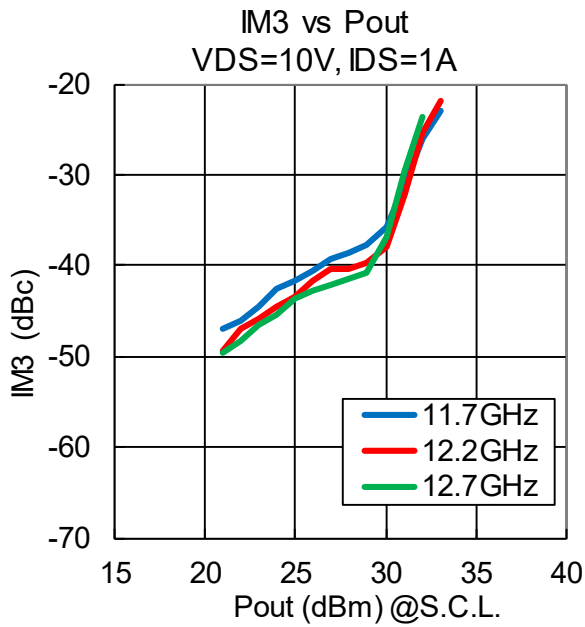
•Pout , Gain , PAE , IDS vs. Pin

VDS= 10 V, IDSset= 1.0 A, f= 11.7, 12.2, 12.7 GHz, Ta= +25 °C



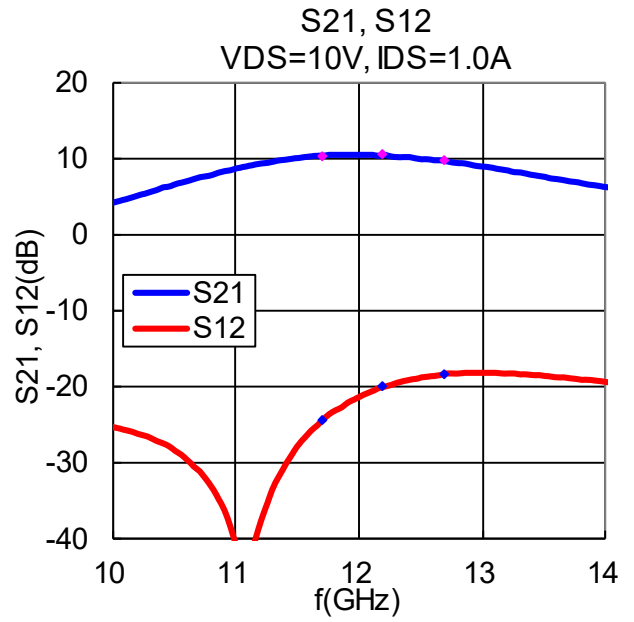
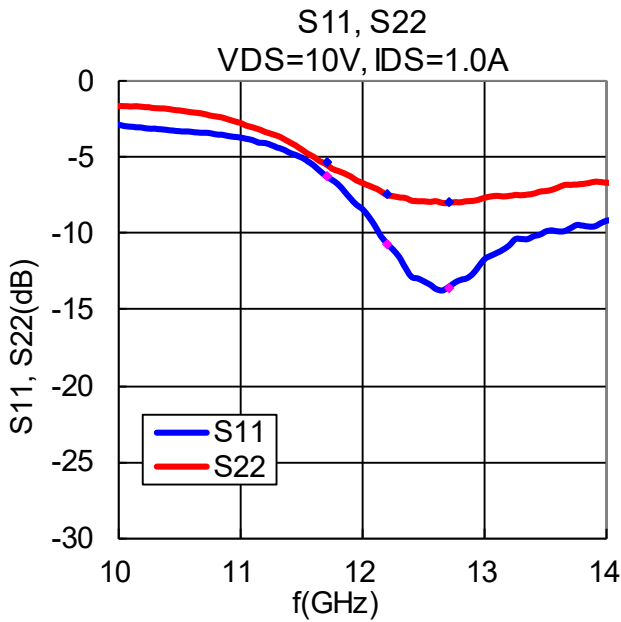
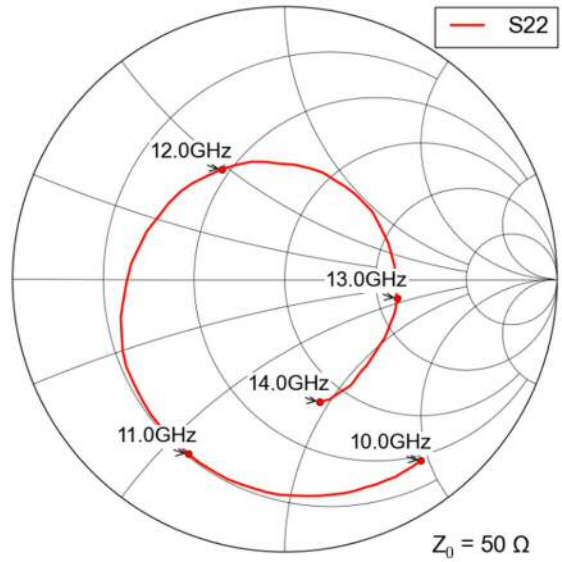
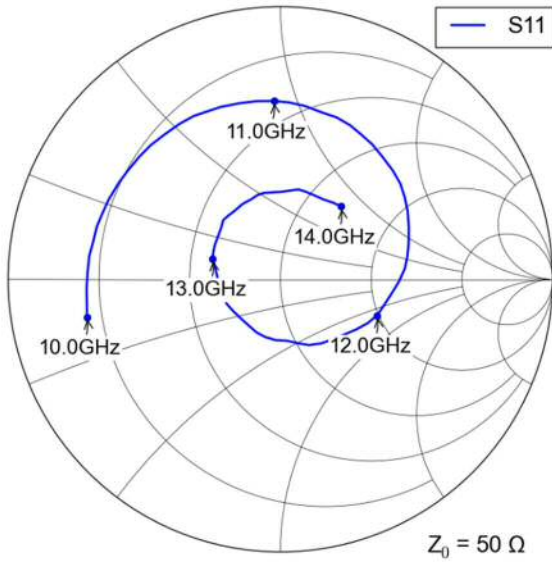
**•IM3, IM5 vs. Pout**

VDS= 10 V, IDSset= 1.0 A, f= 11.7, 12.2, 12.7 GHz, Δf= 5 MHz , Ta= +25 °C



**-S-Parameters**

VDS= 10 V, IDSset= 1.0 A, f= 10.0 to 14.0 GHz, Ta= +25 °C



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