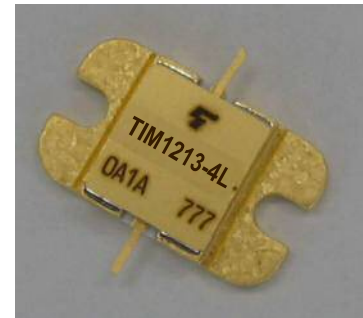


FEATURES

- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER
P1dB= 36.5dBm at 12.7GHz to 13.2GHz
- HIGH GAIN
G1dB= 7.5dB at 12.7GHz to 13.2GHz
- 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= 9V IDSset= 2.0A f= 12.7 to 13.2GHz	dBm	35.5	36.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	6.5	7.5	—
Drain Current	IDS1		A	—	1.7	2.2
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	24	—
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po= 25.0dBm, Δf= 5MHz (Single Carrier Level)	dBc	-42	-45	—
Drain Current	IDS2		A	—	1.7	2.2
Channel Temperature Rise	ΔTch	(VDS X IDS + Pin – P1dB) X Rth(c-c)	°C	—	—	70

Recommended Gate Resistance(Rg): 150 Ω

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

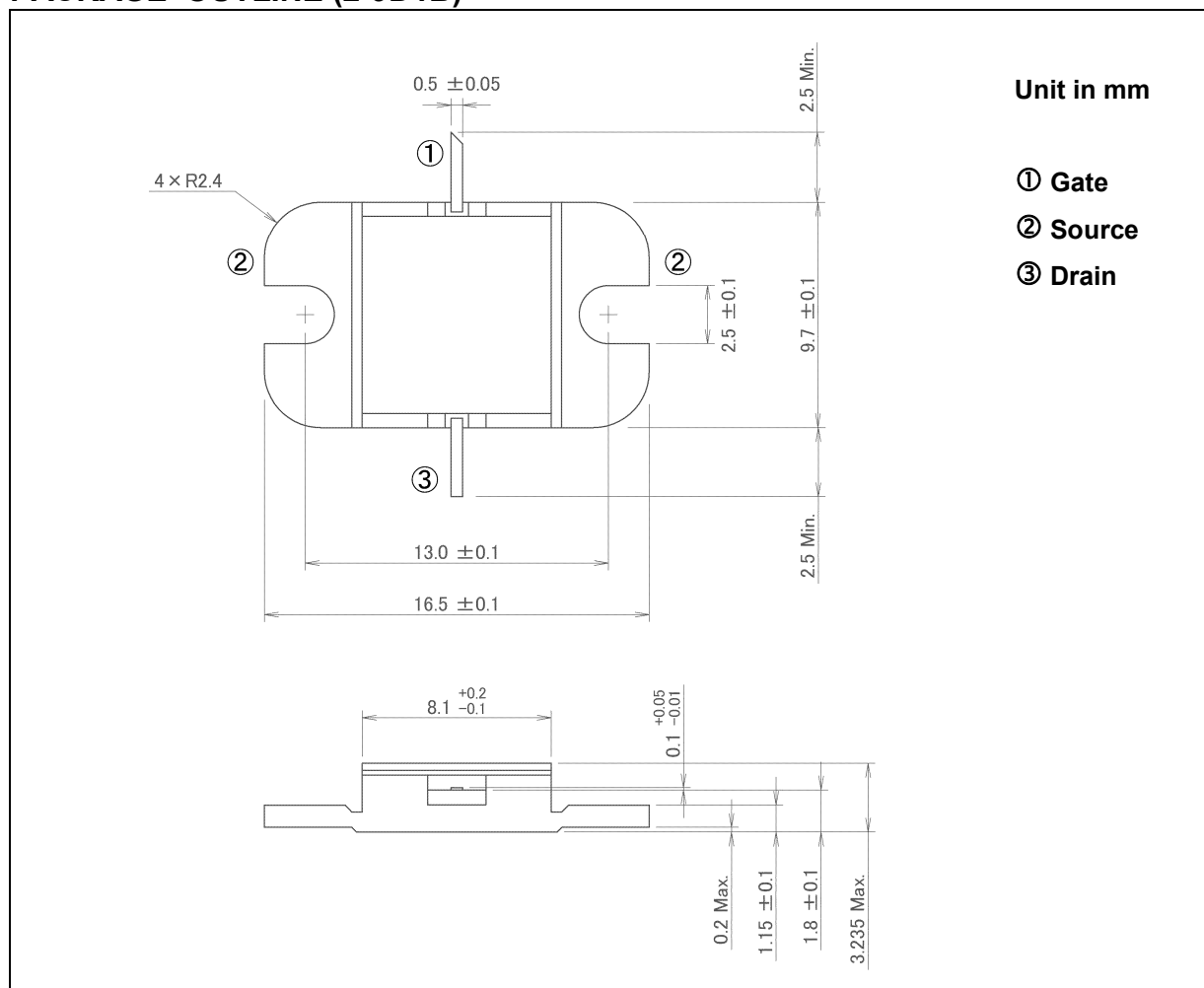
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 2.0A	S	—	1.2	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 60mA	V	-2.0	-3.5	-5.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	4.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -60μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	2.9	3.5

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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	5.2
Total Power Dissipation (Tc= 25°C)	PT	W	42.8
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

PACKAGE OUTLINE (2-9D1B)



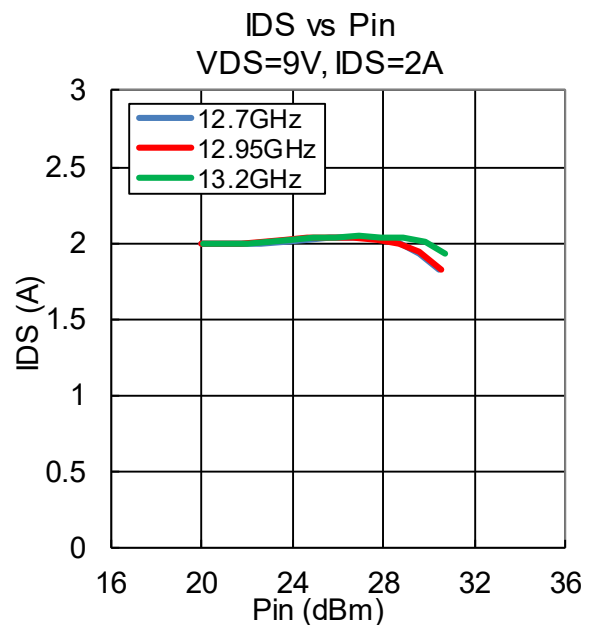
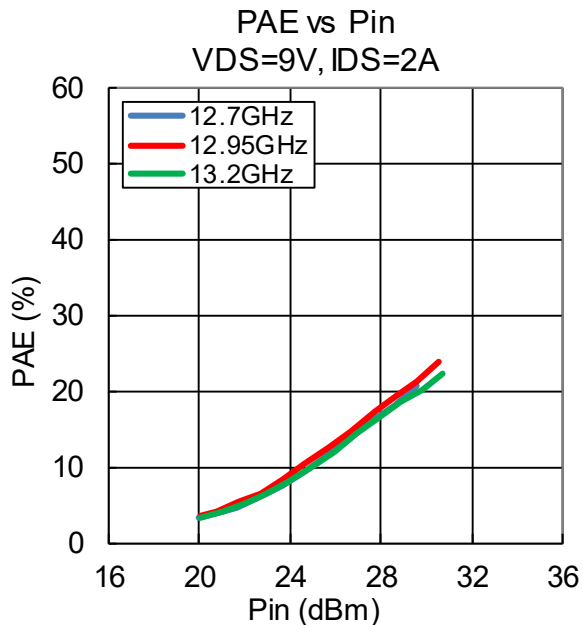
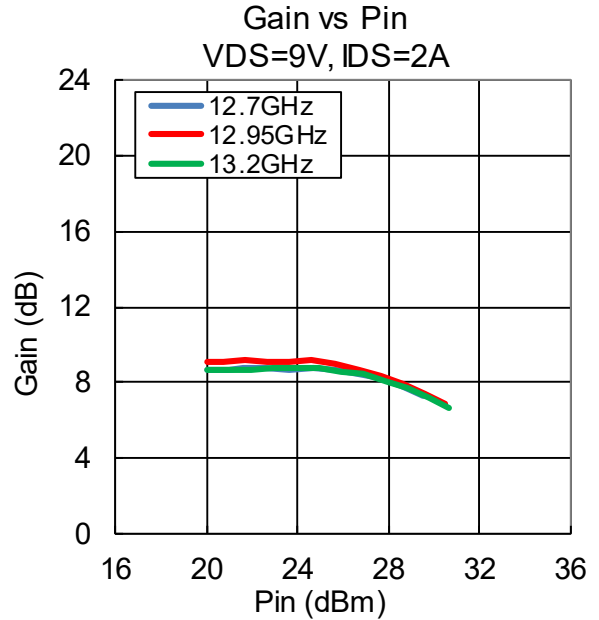
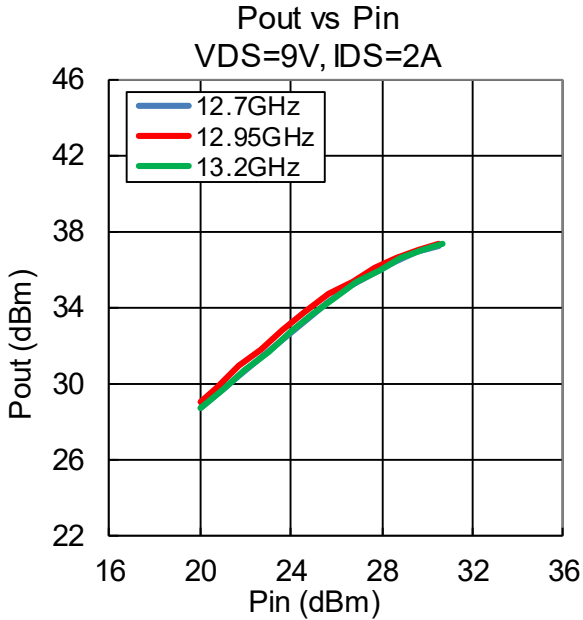
HANDLING PRECAUTIONS FOR PACKAGE MODEL

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

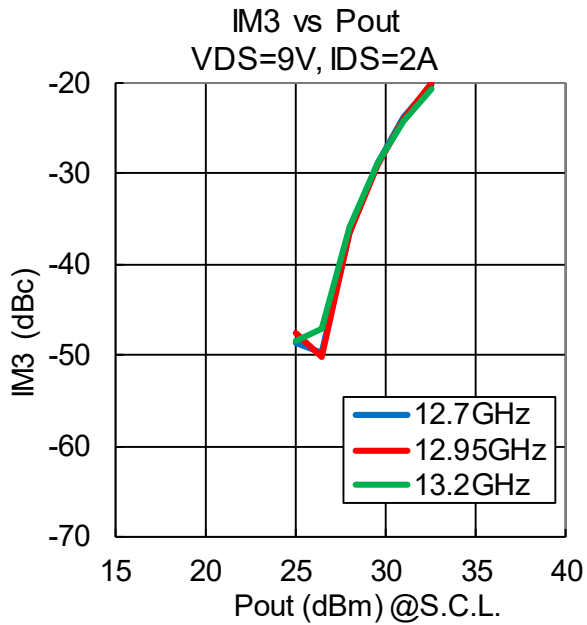
•Pout , Gain , PAE , IDS vs. Pin

VDS= 9 V, IDSset= 2.0 A, f= 12.7, 12.95, 13.2 GHz, Ta= +25 °C



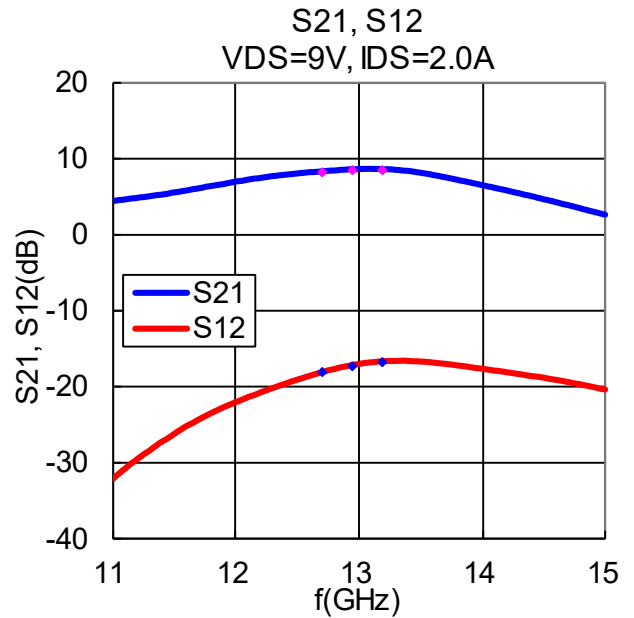
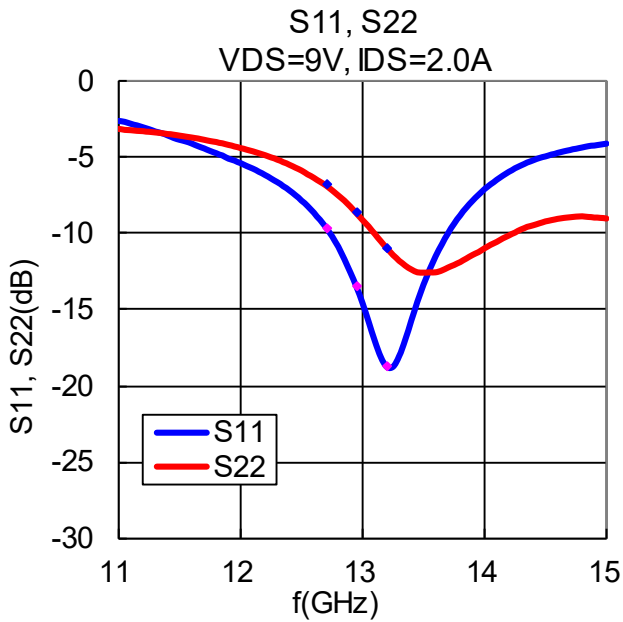
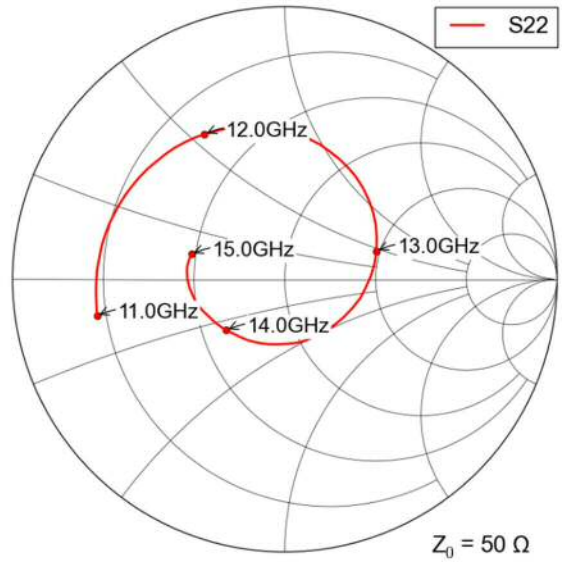
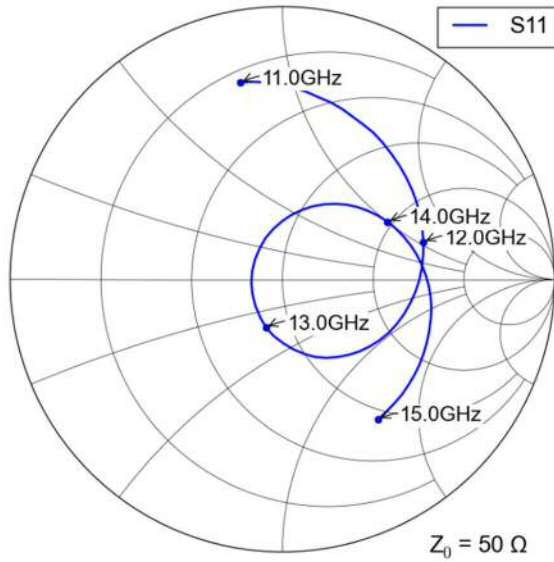
·IM3 vs. Pout

VDS= 9 V, IDSset= 2.0 A, f= 12.7, 12.95, 13.2 GHz, Δf= 5 MHz, Ta= +25 °C



-S-Parameters

VDS= 9 V, IDSset= 2.0 A, f= 11.0 to 15.0 GHz, Ta= +25 °C



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