

FEATURES

- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER
P1dB= 38.5dBm at 14.0GHz to 14.5GHz
- HIGH GAIN
G1dB= 6.5dB at 14.0GHz to 14.5GHz
- 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= 14.0 to 14.5GHz	dBm	37.5	38.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	5.5	6.5	—
Drain Current	IDS		A	—	2.25	2.75
Power Added Efficiency	η_{add}		%	—	27	—
Channel Temperature Rise	ΔT_{ch}		$(VDS \times IDS + P_{in} - P_{1dB}) \times R_{th(c-c)}$	°C	—	—

Recommended Gate Resistance(Rg): 100 Ω

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

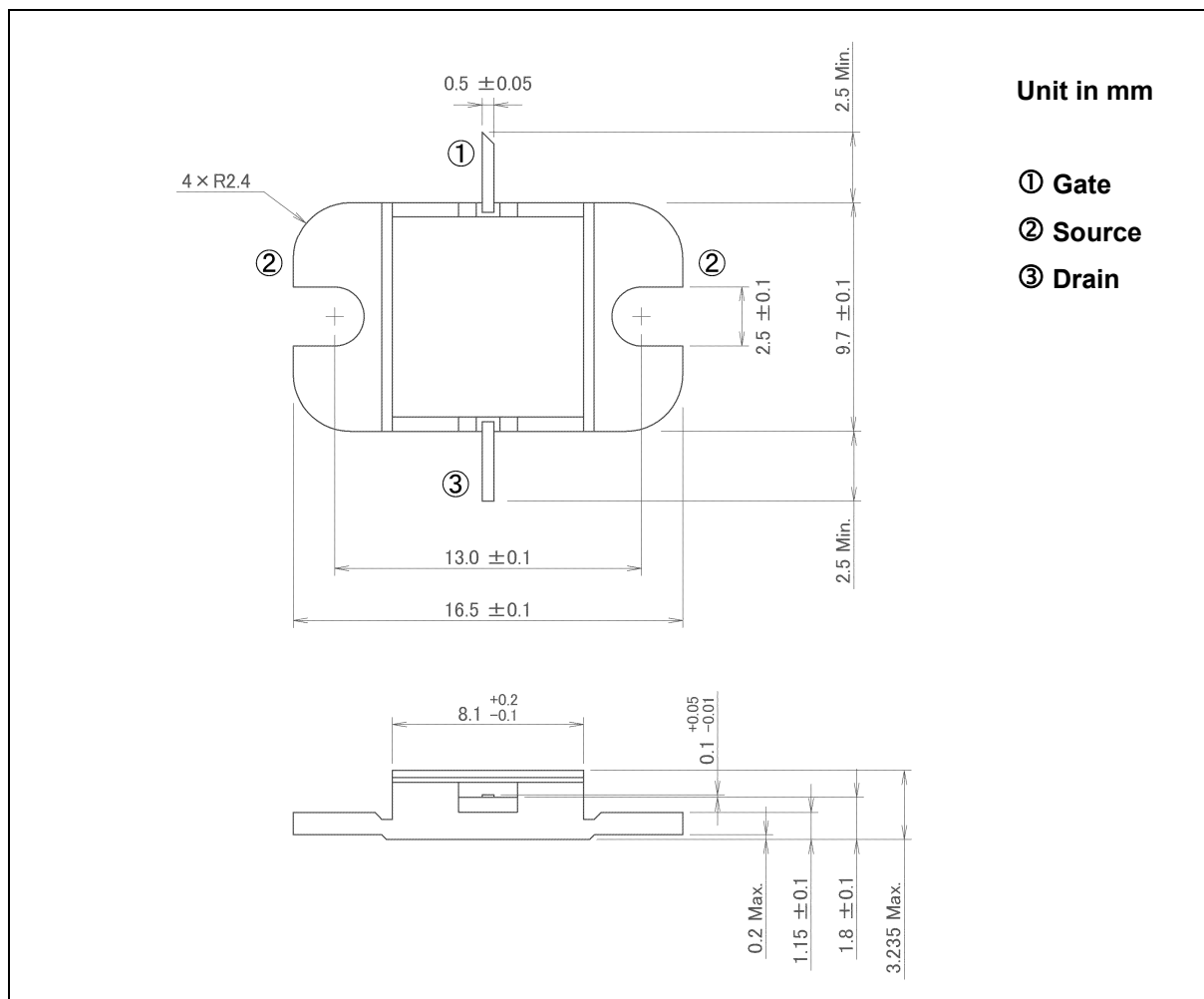
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 2.4A	S	—	1.5	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 72mA	V	-1.5	-3.0	-4.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	5.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -72μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	3.0	3.7

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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	5.7
Total Power Dissipation (Tc= 25°C)	PT	W	40.5
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

PACKAGE OUTLINE (2-9D1B)



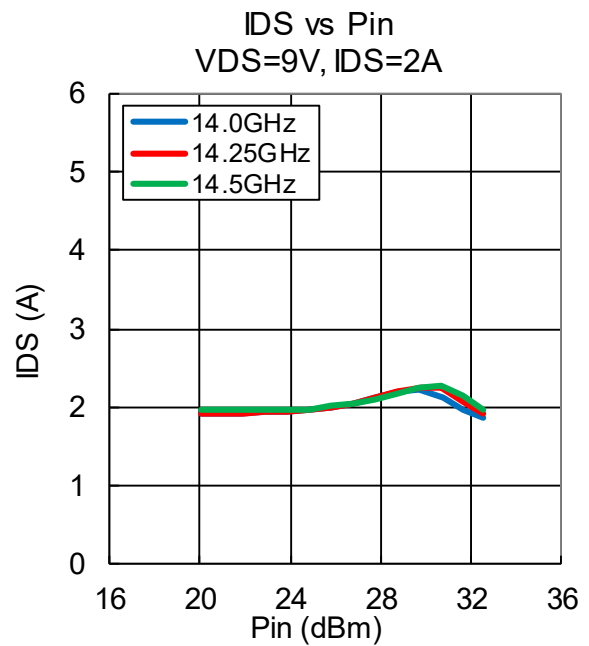
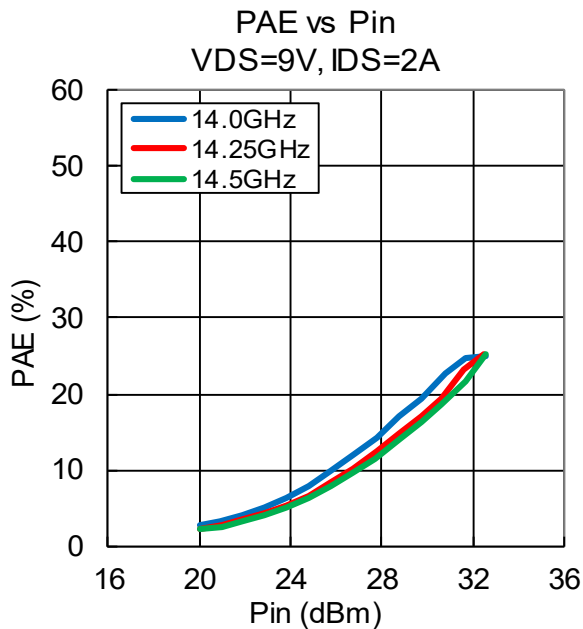
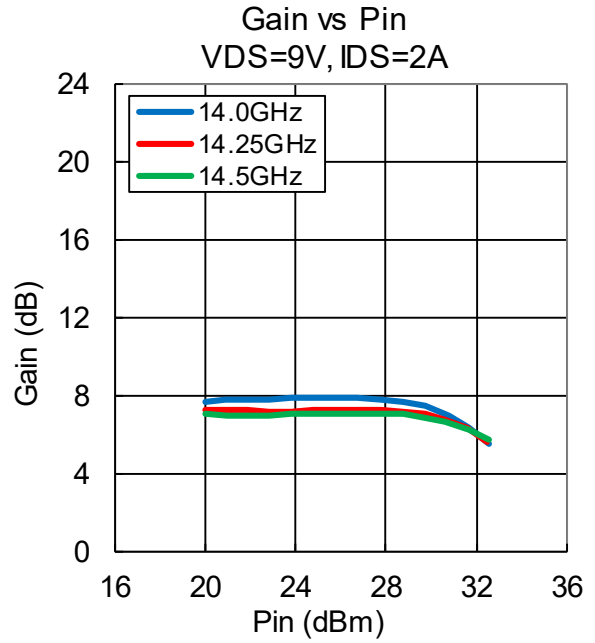
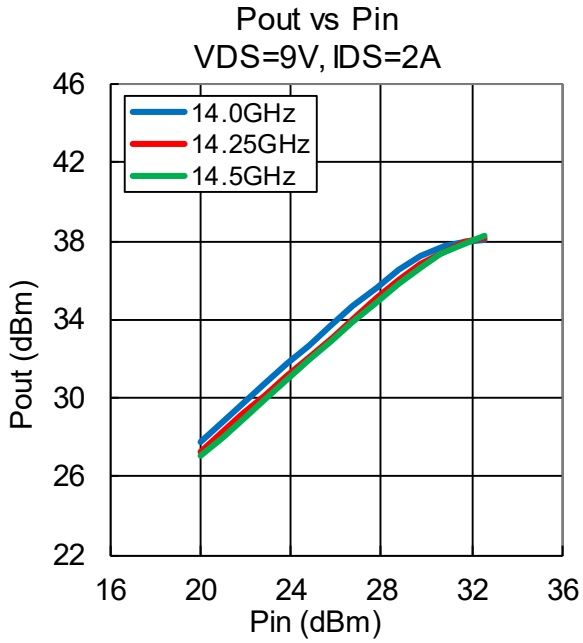
HANDLING PRECAUTIONS FOR PACKAGE MODEL

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

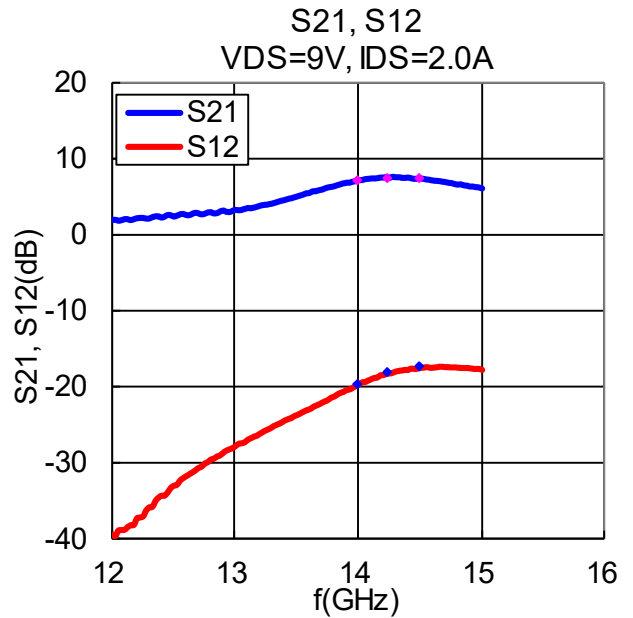
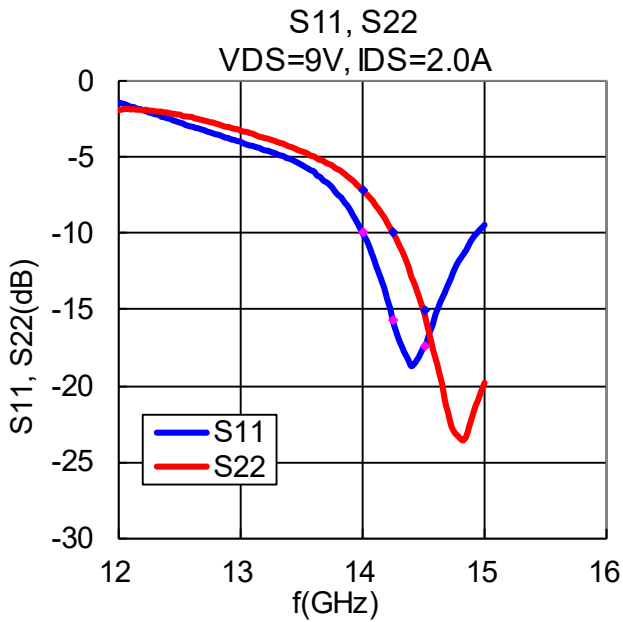
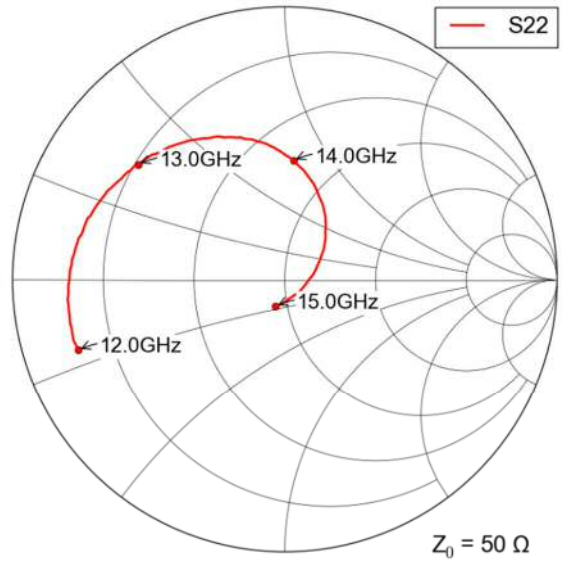
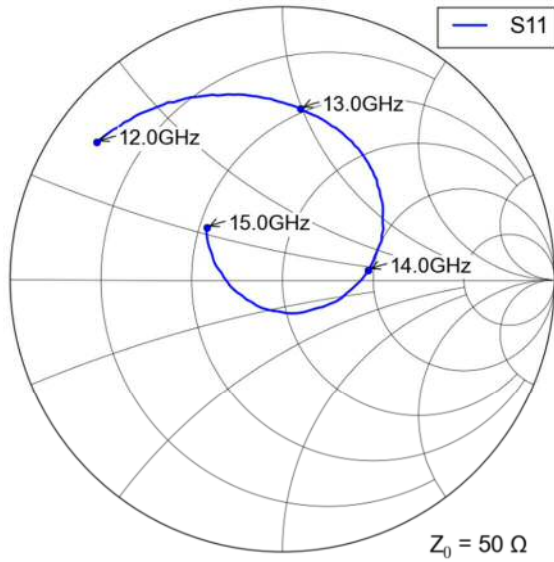
•Pout , Gain , PAE , IDS vs. Pin

VDS= 9 V, IDSset= 2.0 A, f= 14.0, 14.25, 14.5 GHz, Ta= +25 °C



-S-Parameters

VDS= 9 V, IDSset= 2.0 A, f= 12.0 to 15.0 GHz, Ta= +25 °C



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