

### FEATURES

- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER  
P1dB= 39.5dBm at 13.75GHz to 14.5GHz
- HIGH GAIN  
G1dB= 6.0dB at 13.75GHz to 14.5GHz
- LOW INTERMODULATION DISTORTION  
IM3= -25dBc(Min.) at Pout= 33dBm (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= 9V IDSset= 2.2A f= 13.75 to 14.5GHz	dBm	39.0	39.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	5.0	6.0	—
Drain Current	IDS1		A	—	2.8	3.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	26	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po= 33dBm, Δf= 5MHz (Single Carrier Level)	dBc	-25	—	—
Drain Current	IDS2		A	—	2.8	3.0
Channel Temperature Rise	ΔTch	(VDS × IDS + Pin - P1dB) × Rth(c-c)	°C	—	—	80

Recommended Gate Resistance(Rg): 150 Ω

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

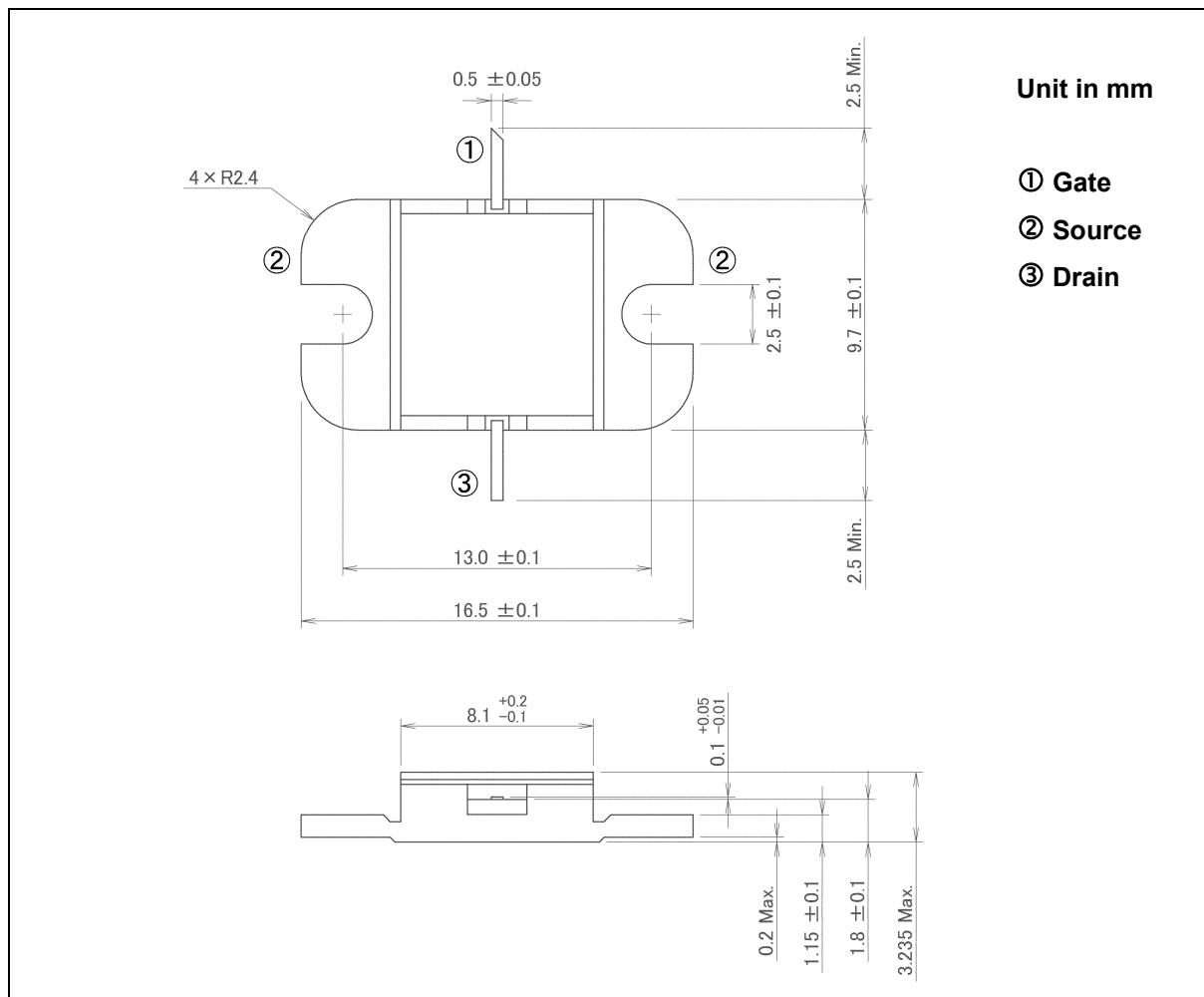
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 2.4A	S	—	2.2	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 72mA	V	-0.7	-2.0	-4.5
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	5.0	—
Gate-Source Breakdown Voltage	VGSO	IGS= -72μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel 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	30.0
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

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



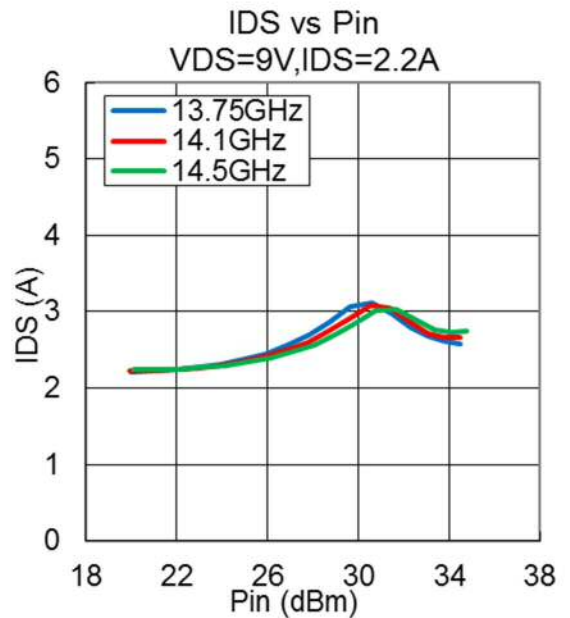
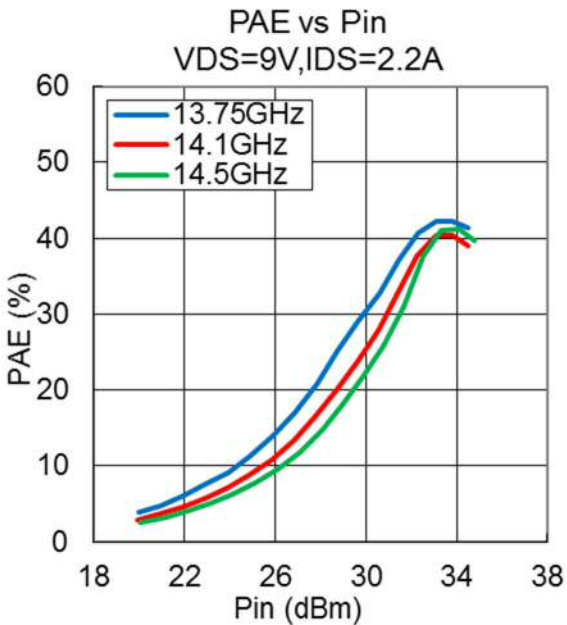
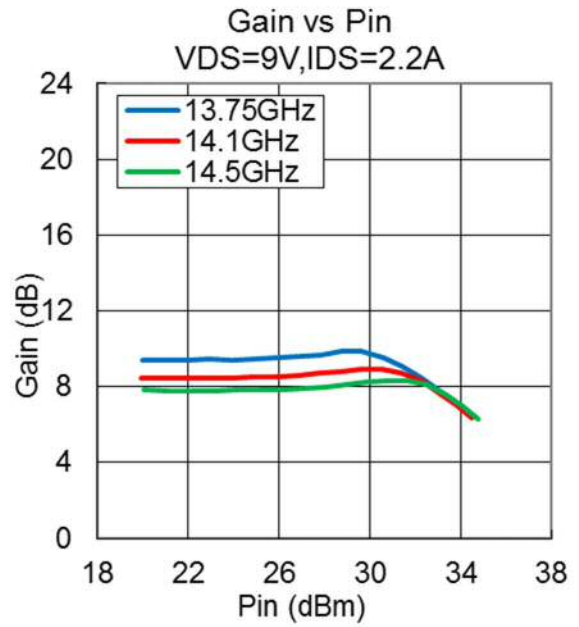
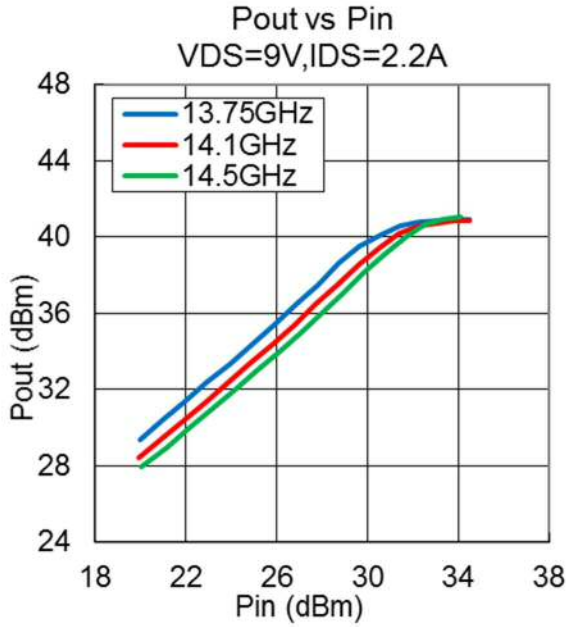
**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

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**

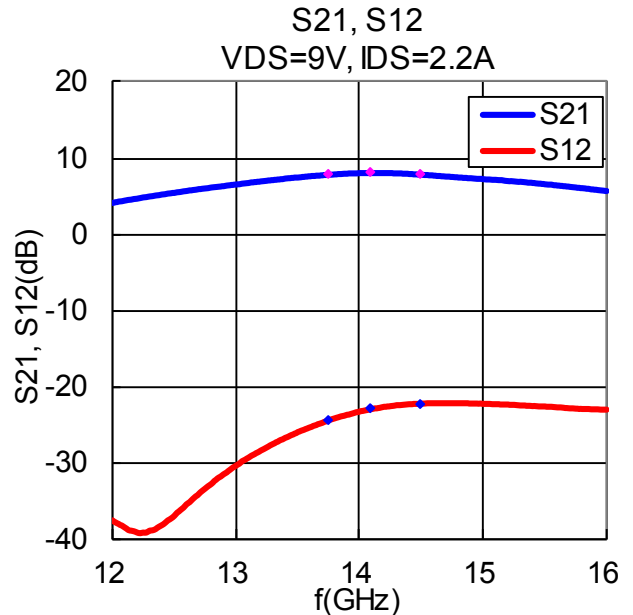
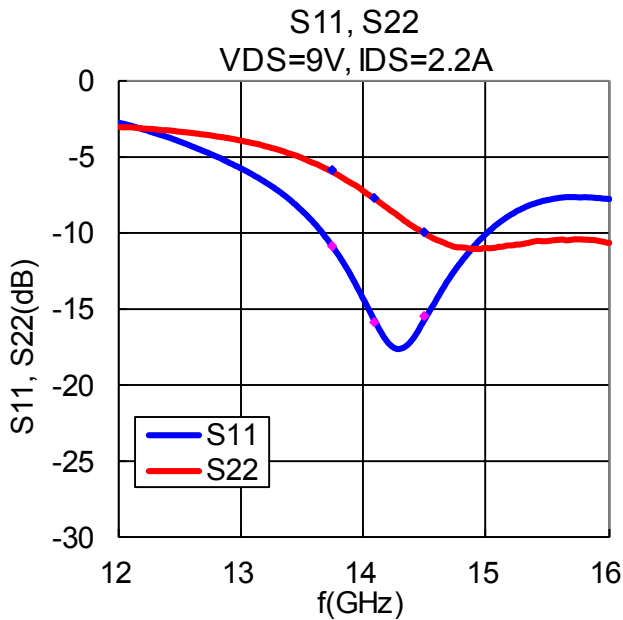
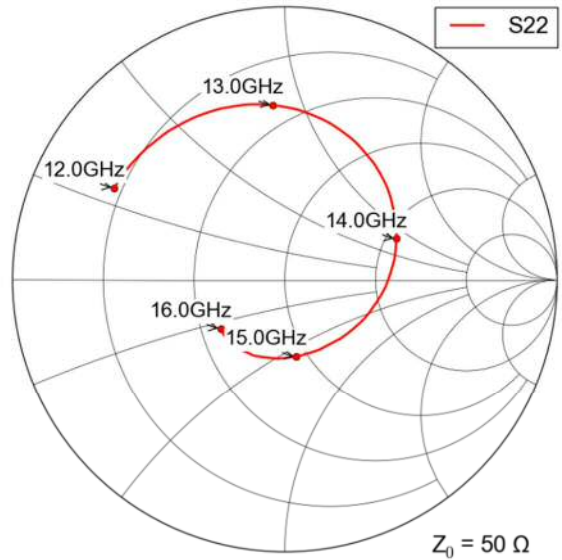
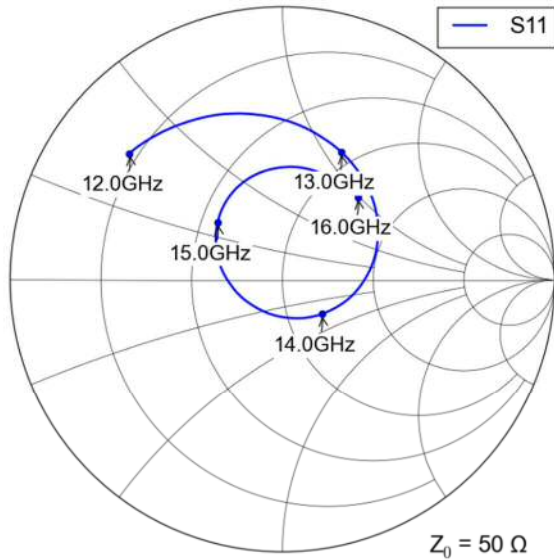
•Pout , Gain , PAE , IDS vs. Pin

VDS= 9 V, IDSset= 2.2 A, f= 13.75, 14.1, 14.5 GHz, Ta= +25 °C



**-S-Parameters**

VDS= 9 V, IDSset= 2.2 A, f= 12.0 to 16.0 GHz, Ta= +25 °C



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