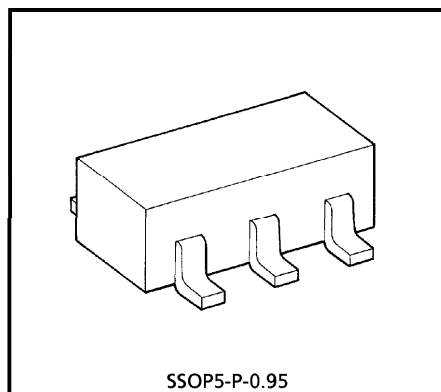


# TA4011F

## UHF WIDE BAND AMPLIFIER APPLICATIONS

### FEATURES

- Low Current :  $I_{CC} = 3.5\text{mA}$
- Wide Band :  $f = 2.4\text{GHz}$  (3dB down)
- Operating Supply Voltage :  $V_{CC} = 1.5\sim 3\text{V}$



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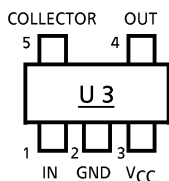
Weight : 0.014g (Typ.)

### MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	$V_{CC}$	4	V
Total Power Dissipation	$P_D$ (Note 1)	300	mW
Operating Temperature	$T_{opr}$	-40~85	°C
Storage Temperature	$T_{stg}$	-55~150	°C

(Note 1) When mounted on the glass epoxy of 2.5cm<sup>2</sup> × 1.6t

### PIN ASSIGNMENT



### CAUTION

This device electrostatic sensitivity. Please handle with caution.

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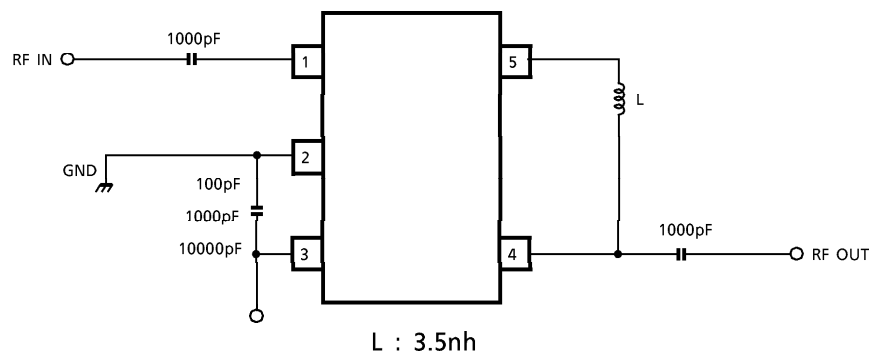
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ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ ,  $Z_g = Z_l = 50\Omega$ )

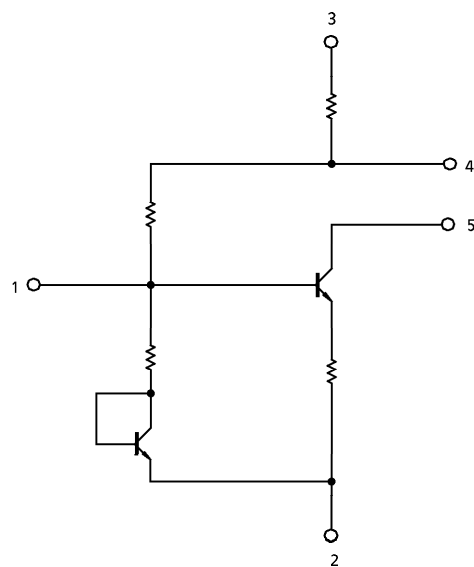
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Circuit Current	$I_{CC}$	$V_{CC} = 2\text{V}$ , Non carrier	2.5	3.5	4.5	mA
Band Width	BW	$V_{CC} = 2\text{V}$ (Note 2)	2.2	2.4	—	GHz
Insertion Gain	$ S_{21} ^2$	$V_{CC} = 2\text{V}$ , $f = 1.5\text{GHz}$	8	10	—	dB
Noise Figure	NF	$V_{CC} = 2\text{V}$ , $f = 1.5\text{GHz}$	—	6.5	8	dB
Isolation	$ S_{12} ^2$	$V_{CC} = 2\text{V}$ , $f = 1.5\text{GHz}$	—	-22	—	dB
Input Return Loss	$ S_{11} ^2$	$V_{CC} = 2\text{V}$ , $f = 1.5\text{GHz}$	—	-6.5	—	dB
Output Return Loss	$ S_{22} ^2$	$V_{CC} = 2\text{V}$ , $f = 1.5\text{GHz}$	—	-5.5	—	dB
Output Power at 1dB Gain Compression	$P_{o1dB}$	$V_{CC} = 2\text{V}$ , $f = 1.5\text{GHz}$	—	-6	—	dBmW

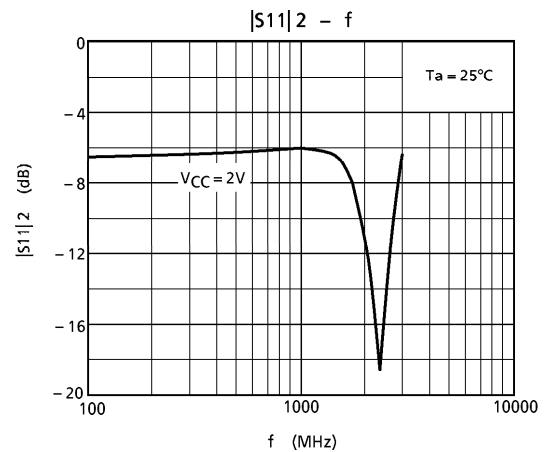
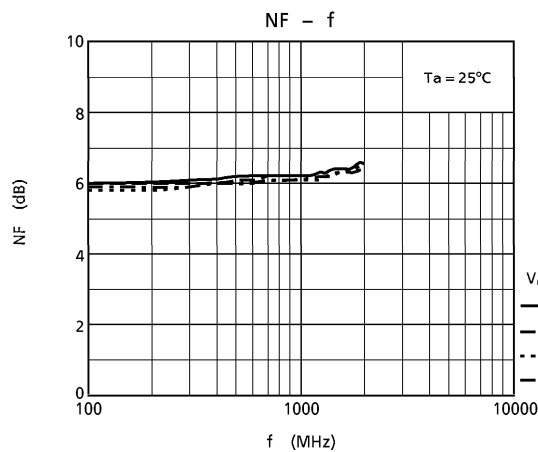
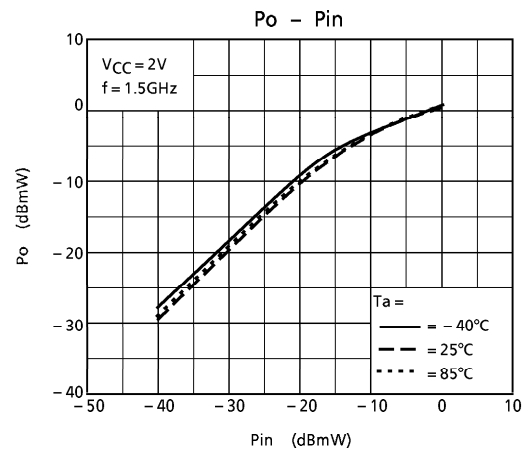
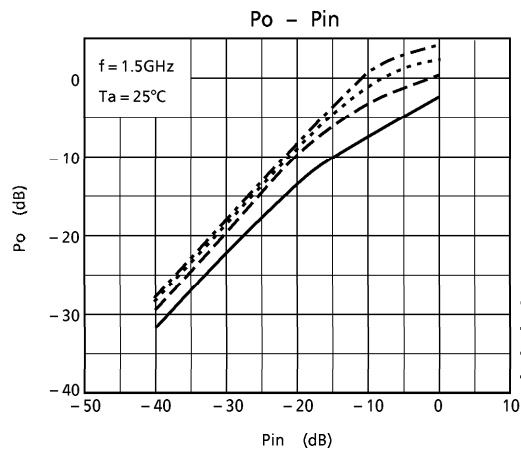
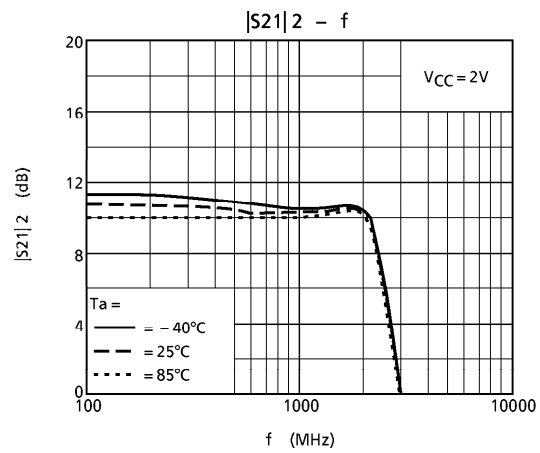
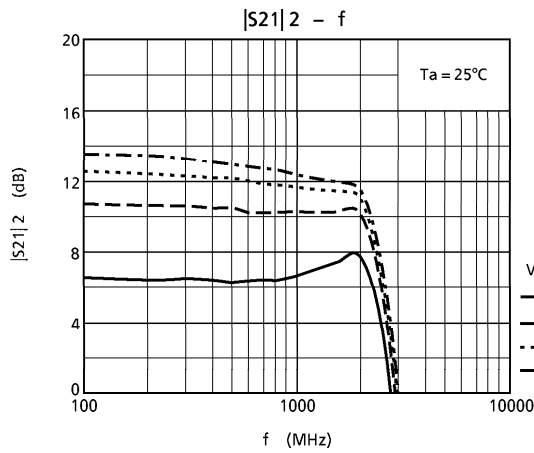
(Note 2) BW is the frequency of 3dB down from  $|S_{21}|^2$  at 1.5GHz.

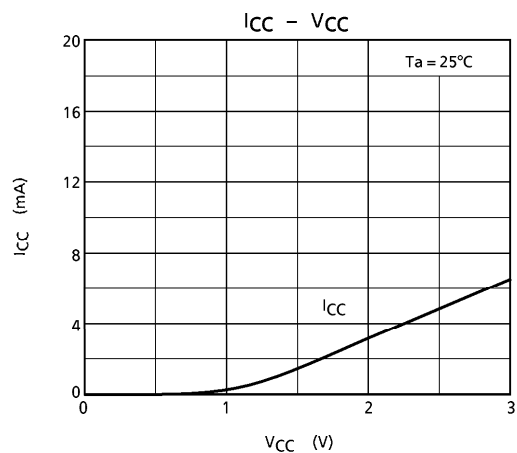
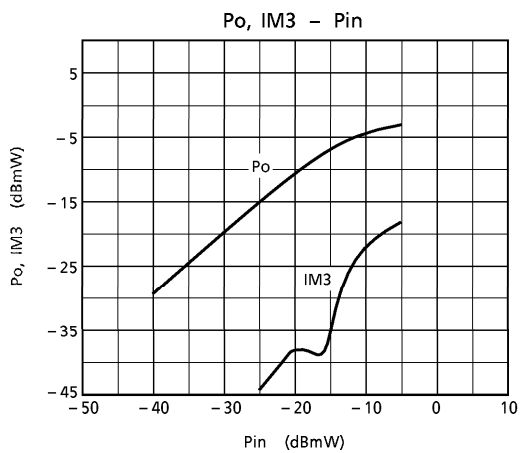
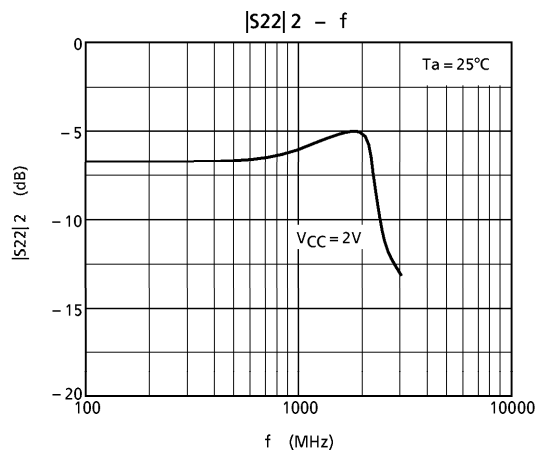
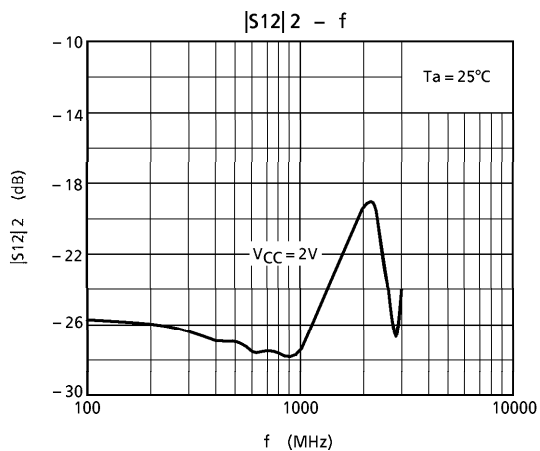
**RF TEST CIRCUIT (TOP VIEW)**



**EQUIVALENT CIRCUIT**

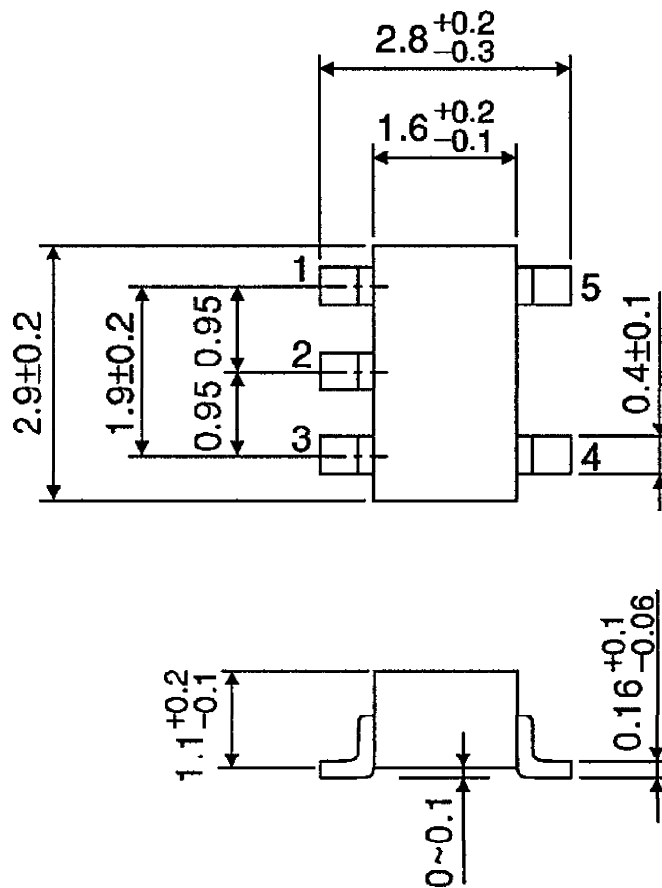






OUTLINE DRAWING  
SSOP5-P-0.95

Unit : mm



Weight : 0.014g (Typ.)