

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

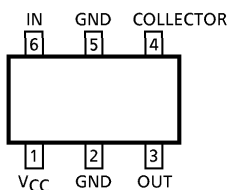
TA4009F

1.9GHz BAND PRE AMPLIFIER APPLICATION

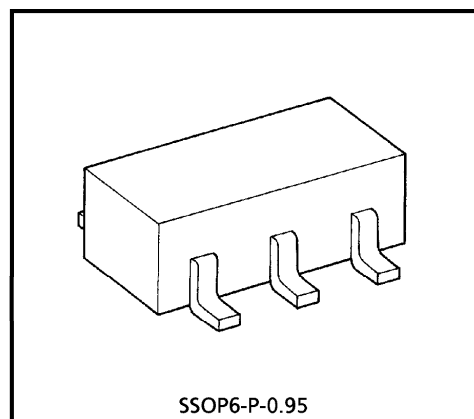
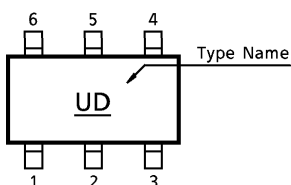
FEATURES

- Low current : $I_{CC} = 12\text{mA}$ (Typ.)
- High gain : $G_p = 12\text{dB}$ (Typ.)
- Recommended operating voltage : $V_{CC} = 2.7\sim 3.3\text{V}$

PIN ASSIGNMENT (TOP VIEW)



MARKING



SSOP6-P-0.95
Weight : 0.014g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}	5	V
Total Power Dissipation	P_D (*)	300	mW
Operating Temperature	T_{opr}	-40~85	°C
Storage Temperature Range	T_{stg}	-55~125	°C

(*) When mounted on the glass epoxy board of 2.5cm² × 1.6t.

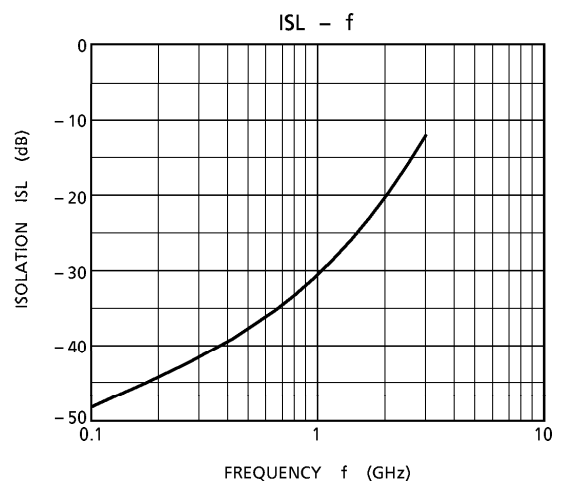
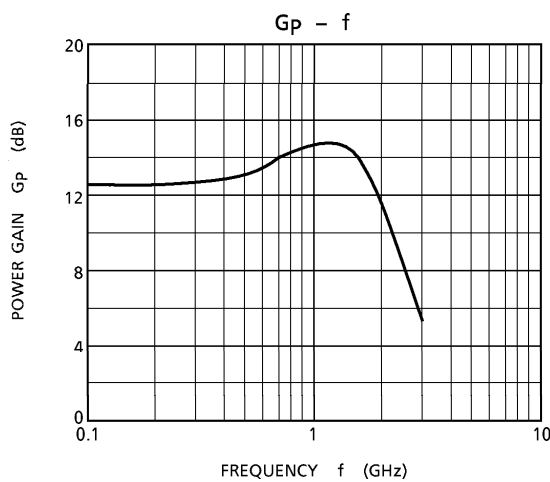
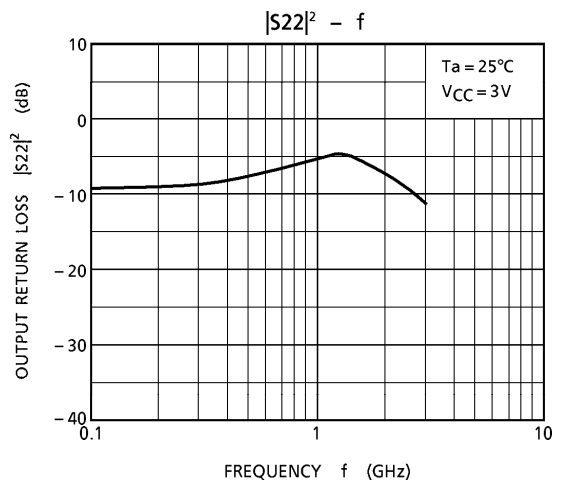
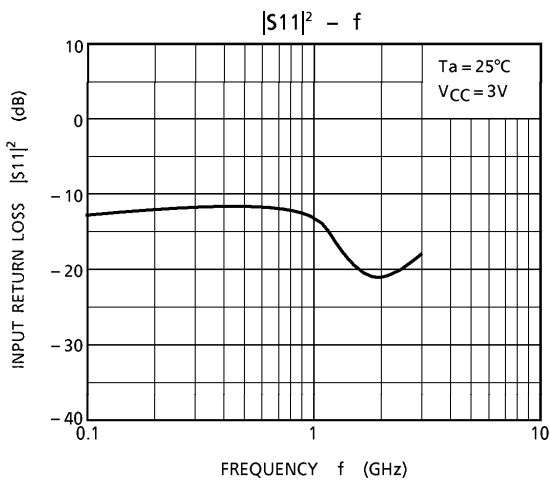
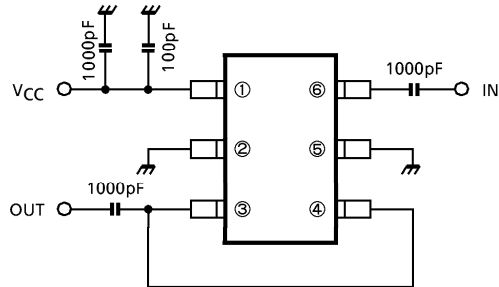
ELECTRICAL CHARACTERISTICS (V_{CC} = 3V, Ta = 25°C, Z_g = Z_l = 50Ω)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Circuit Current	I_{CC}	—	Non Carrier	—	12	16	mA
Frequency Range	f_{range}	—	—	1895	—	1918	MHz
Power Gain	G_p	1	f = 1895~1918MHz	10	12	—	dB
Noise Figure	NF	1		—	6	—	dB
Isolation	ISL	1		15	20	—	dB
Input VSWR	$VSWR_{in}$	1		—	1.2	2.0	—
Output VSWR	$VSWR_{out}$	1		—	2.5	—	—
Output Power At 1dB Gain Compersion	P_{O1dB}	1		—	-8	—	dBmW

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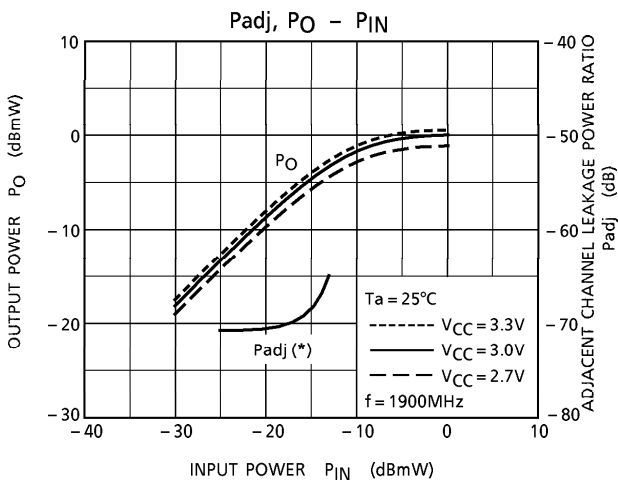
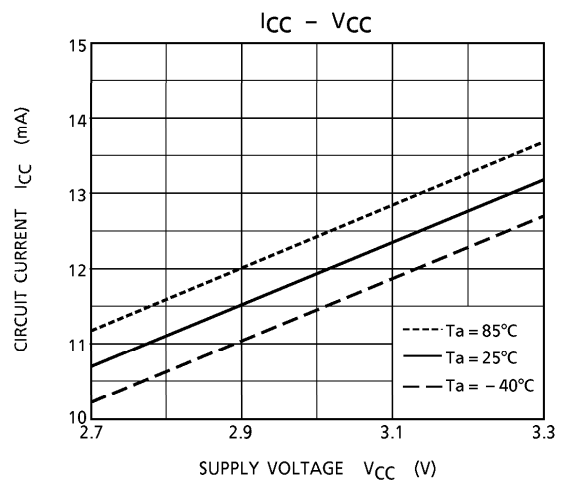
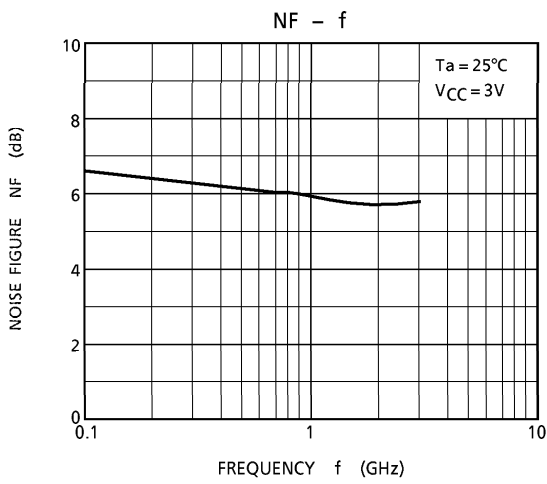
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TEST CIRCUIT 1.



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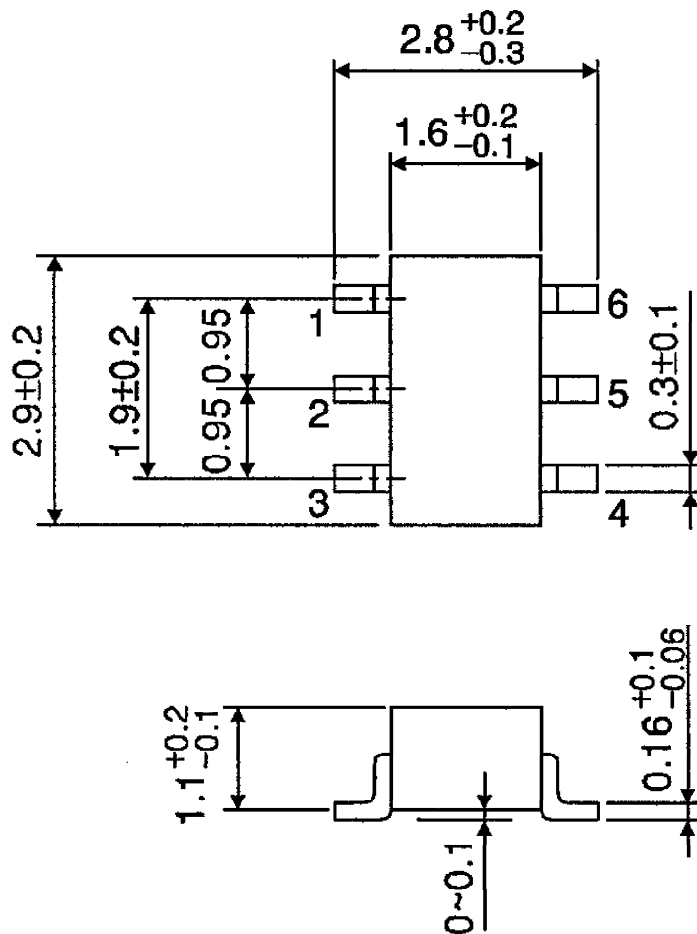
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(*) Input signal is modulated to $\pi/4$ QPSK ($\alpha = 0.5$). Bit rate is 384kbps. $\Delta f = 600$ kHz.

OUTLINE DRAWING
SSOP6-P-0.95

Unit : mm



Weight : 0.014g (Typ.)