

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

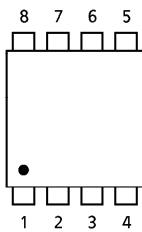
# TA4101F

## UHF VHF MIX APPLICATION

### FEATURES

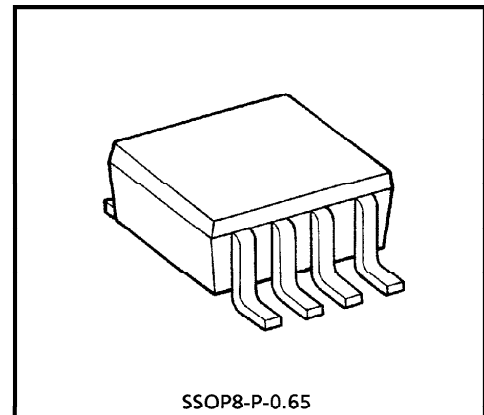
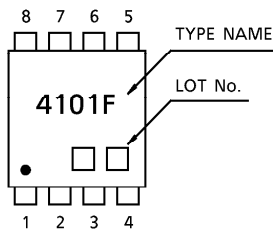
- Double Balance circuit

### PIN ASSIGNMENT (TOP VIEW)



- 1. IF OUT
- 2. V<sub>CC</sub>
- 3. OSC IN
- 4. Base
- 5. Base
- 6. Base
- 7. GND
- 8. Collector

### MARKING



Weight : 0.02g (Typ.)

### MAXIMUM RATING (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub>	6	V
Total Power Dissipation	P <sub>D</sub> (*)	300	mW
Operating Temperature	T <sub>opr</sub>	- 40~85	°C
Storage Temperature Range	T <sub>stg</sub>	- 55~125	°C

(\*) When mounted the glass epoxy board of 2.5cm<sup>2</sup> × 1.6t

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

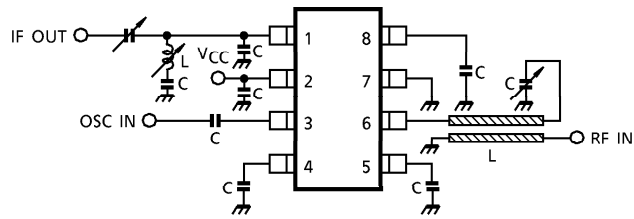
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Circuit Current	I <sub>CC</sub>	—	V <sub>CC</sub> = 5V	3.9	5.7	7.5	mA
MIXER Gain	G <sub>MIX</sub>	1	V <sub>CC</sub> = 5V, (*)	- 6.0	- 3.5	—	dB
MIXER NOISE Figure	NF <sub>MIX</sub>	1	V <sub>CC</sub> = 5V, (*)	—	9.0	12.0	dB
Maximum Output Level	P <sub>o</sub>	1	V <sub>CC</sub> = 5V, (*)	- 12	- 9	—	dBmW

(\*) : f<sub>RF</sub> = 800MHz, f<sub>LO</sub> = 860MHz (0dBm), I<sub>F</sub> = 60MHz

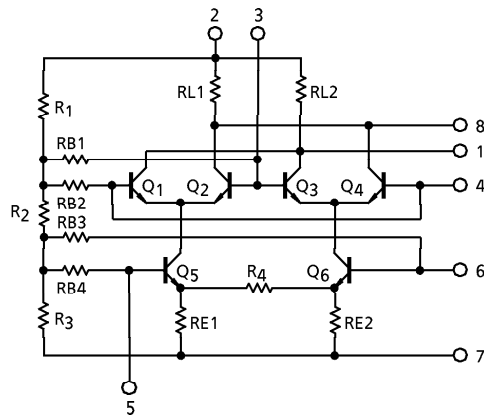
961001EBA2

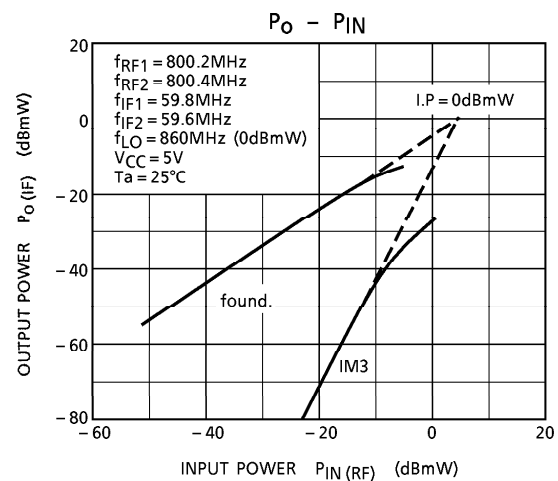
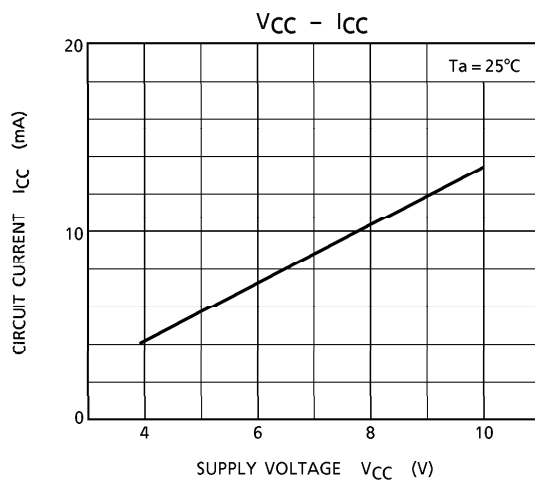
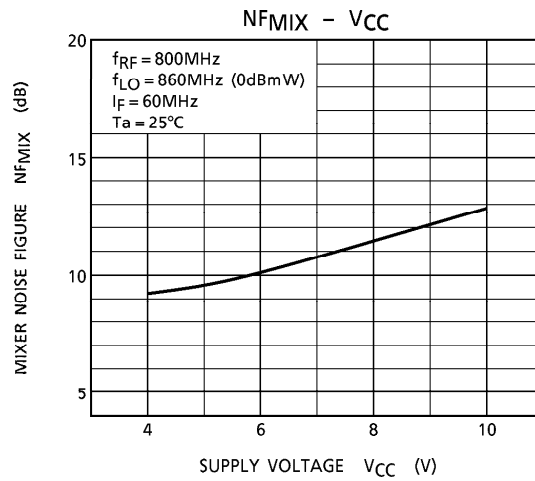
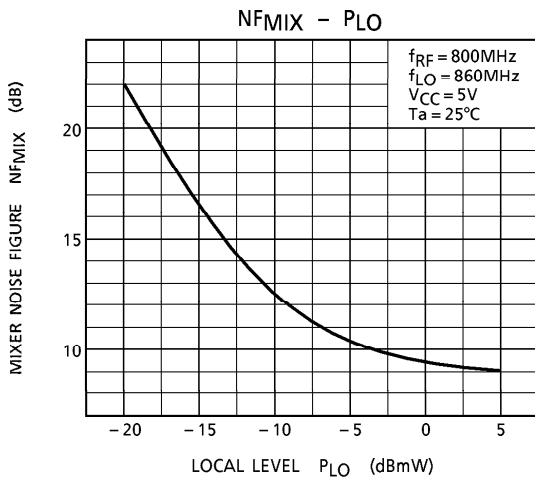
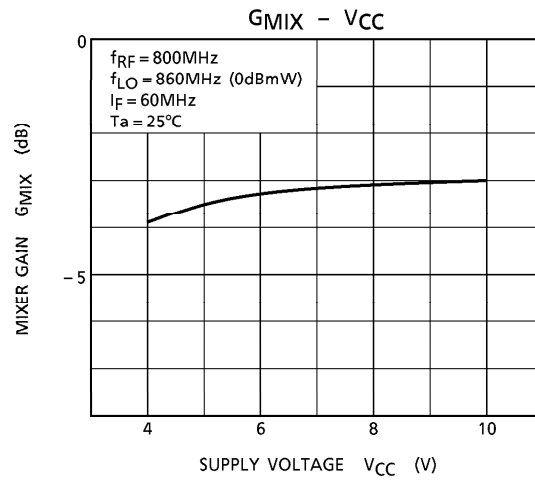
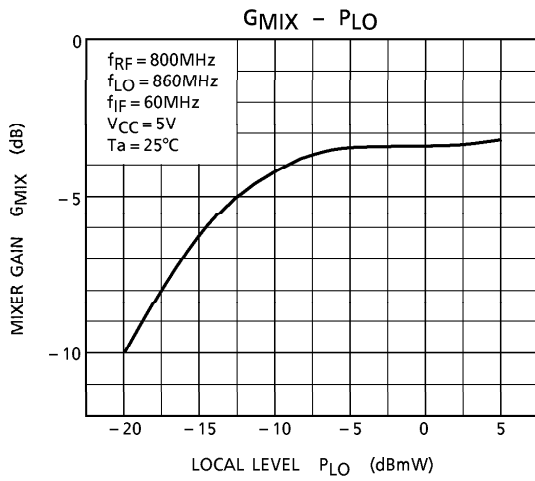
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MEASUREMENT CIRCUIT 1.



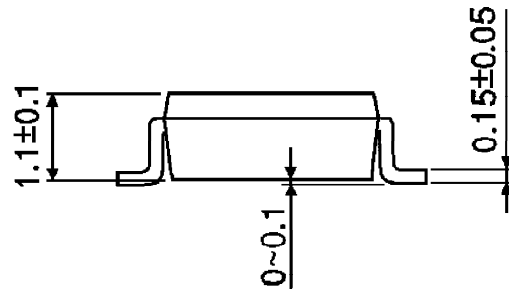
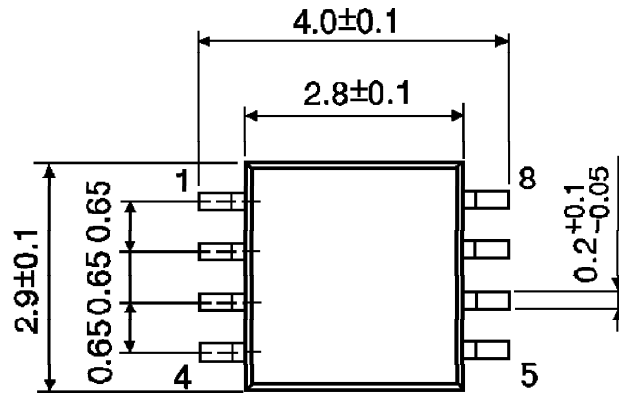
EQUIVALENT CIRCUIT





OUTLINE DRAWING  
SSOP8-P-0.65

Unit : mm



Weight : 0.02g (Typ.)