

TENTATIVE

TOSHIBA GaAs LINEAR INTEGRATED CIRCUIT GaAs MONOLITHIC

TG2006F

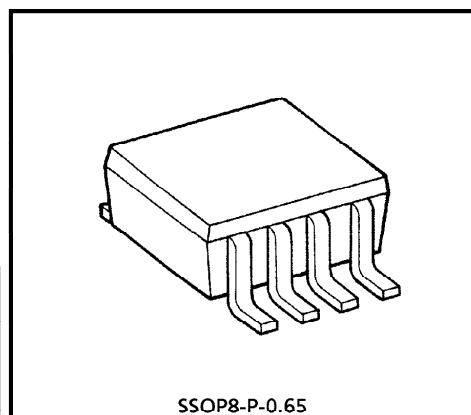
1.9GHz POWER AMP

FEATURES

- $V_{DD} = 3V$, $I_{DD} = 130mA$ (Typ.)
- $P_O = 21dBmW$ (Min), $G_p = 22dB$ (Typ.)
- Single voltage supply

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{DD}	5	V
	V_{GG}	3	V
Input Power	P_i	10	mW
Power Dissipation	P_d (*)	250	mW
Operating Temperature Range	T_{opr}	-40~85	°C
Storage Temperature Range	T_{stg}	-55~150	°C



Weight : 0.02g (Typ.)

P_d (*) When mounted on 2.5cm² x 1.6t glass epoxy board.
 $V_{DD} = V_{DD1} = V_{DD2}$

ELECTRICAL CHARACTERISTICS ($V_{DD} = 3V$, $I_{DD} = 130mA$ (Note 1), 1/8 duty operation) (f = 1.9GHz, Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power	P_O	—	$P_i = 1dBmW$	21	—	—	dBmW
Small Signal Gain	G_p	—	—	20	22	—	dB
Adjacent Channel Leakage Power Ratio	P_{adj}	—	$P_O = 21dBmW$, $P_i = \text{Regulation}$ $\Delta f = 600kHz$ (Note 2)	—	—	-55	dB
Gate Current	I_{GG}	—	$P_O = 21dBmW$, $P_i = \text{Regulation}$	—	—	-1	mA

$I_{DD} = I_{DD1} + I_{DD2}$

Specification when an external match circuit is connected at output.

(Note 1) Value obtained by adjusting (0 to 3V) V_{GG} when 21dBmW is output.

(Note 2) Input signal is modulated to π / GQPSK ($\alpha = 0.5$). Bit rate is 384kbps.

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The diagram shows a rectangular label with the text "2006F" in the center. Above the label are four boxes containing the numbers 8, 7, 6, and 5. Below the label are four boxes containing the numbers 1, 2, 3, and 4. To the left of the label is a solid black circle. To the right of the label are two small squares. A line points from the text "Product number" to the box containing the number 5. Another line points from the text "Monthly lot" to the first small square to the right of the label.

The schematic diagram illustrates a 100MHz differential signal transmission circuit. The circuit is implemented on a glass epoxy board with a thickness of 0.38mm. The input and output lines are transmission lines with specified lengths and widths. The power supply lines also have specified lengths and widths. The circuit is implemented on a glass epoxy board with a thickness of 0.38mm. A legend indicates that the transmission line length is in mm, and the width is in mm. The board thickness is 0.38mm.

Legend:
 Transmission line
 Length/Width
 Unit : mm

Glass epoxy board
 Board thickness : 0.38mm

TG2006F RF TEST BOARD

