

ABSOLUTE MAXIMUM RATINGS¹ ($T_A = 25^\circ\text{C}$)

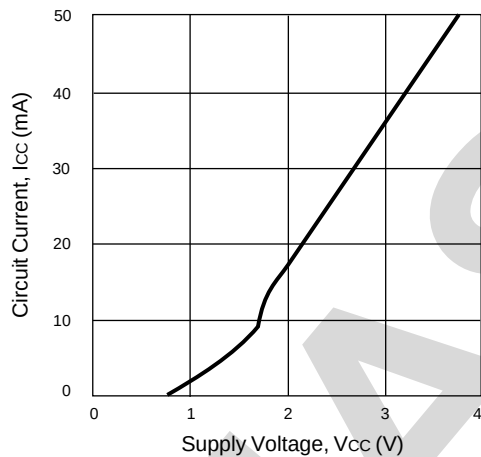
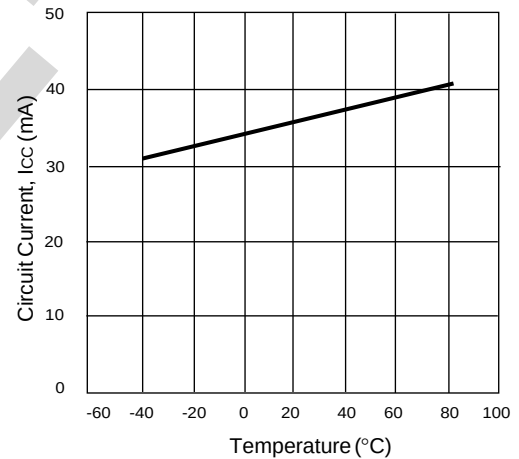
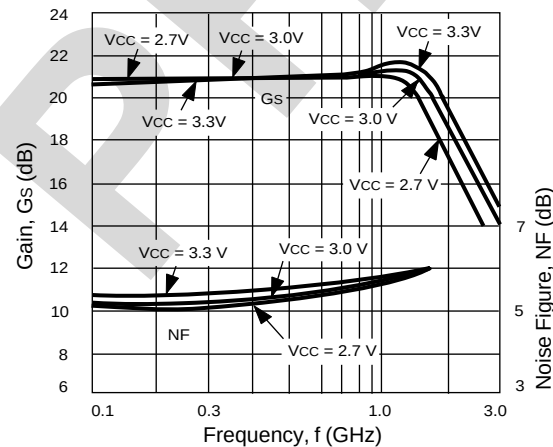
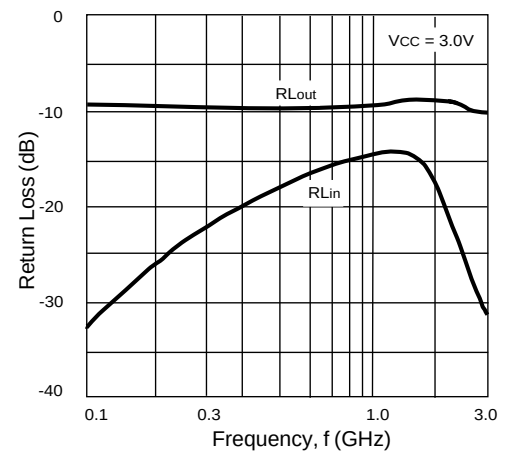
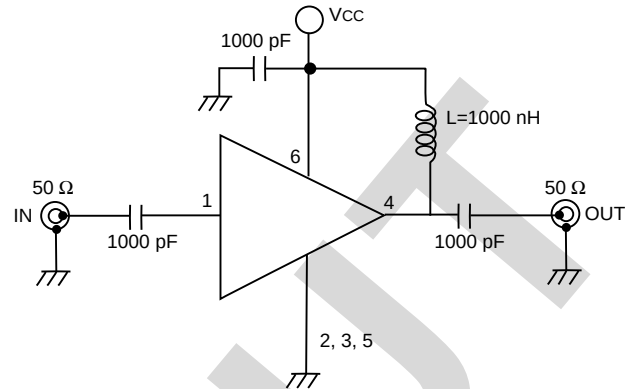
SYMBOLS	PARAMETERS	UNITS	RATINGS
V _{CC}	Supply Voltage	V	3.6
I _{CC}	Total Supply Current	mA	77.7
P _{IN}	Input Power	dBm	+13
P _T	Total Power Dissipation ²	mW	270
T _{OP}	Operating Temperature	°C	-40 to +85
T _{STG}	Storage Temperature	°C	-55 to +150

Notes:

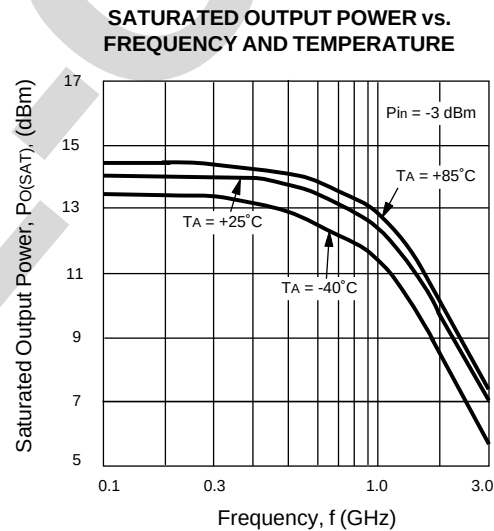
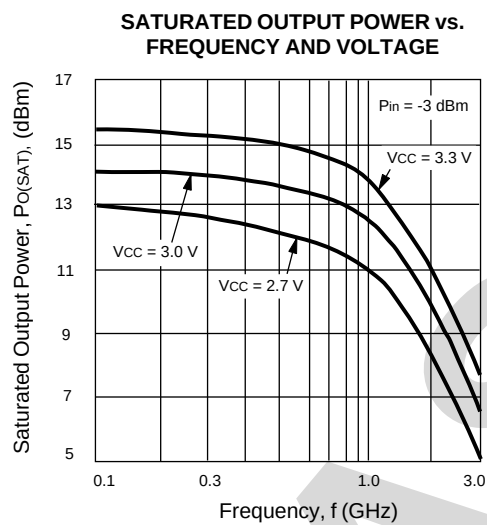
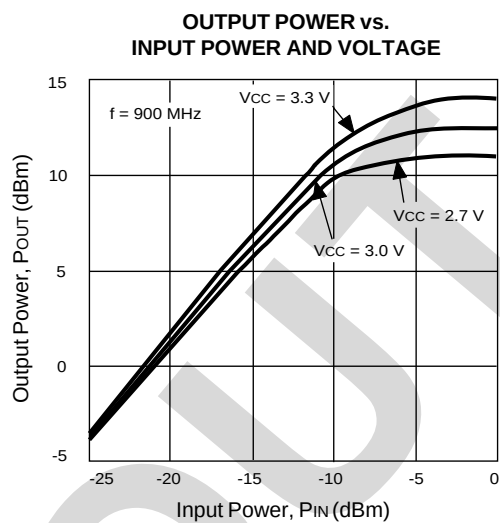
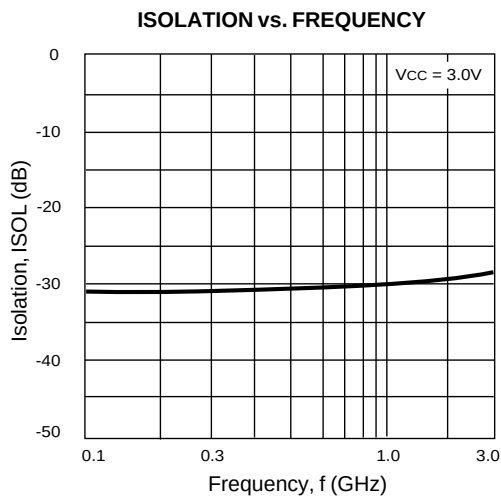
- Operation in excess of any one of these parameters may result in permanent damage.
- Mounted on a 50 X 50 X 1.6 mm epoxy glass PWB ($T_A = 85^\circ\text{C}$).

**RECOMMENDED
OPERATING CONDITIONS**

SYMBOLS	PARAMETERS	UNITS	MIN	TYP	MAX
V _{CC}	Supply Voltage	V	2.7	3	3.3
T _{OP}	Operating Temperature	°C	-40	+25	+85

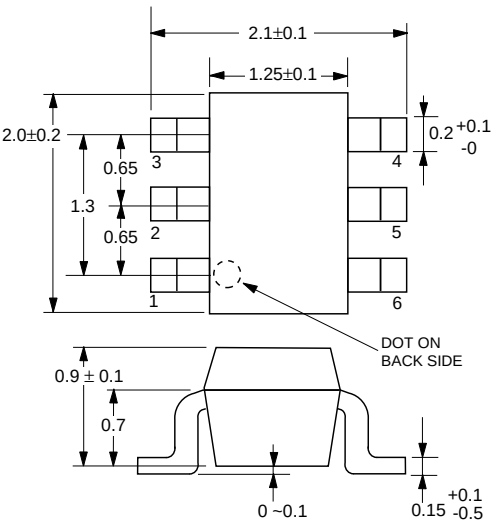
TYPICAL PERFORMANCE CURVES ($T_A = 25^\circ\text{C}$)**CIRCUIT CURRENT vs. VOLTAGE****CIRCUIT CURRENT vs. TEMPERATURE****GAIN AND NOISE FIGURE
vs. FREQUENCY AND VOLTAGE****INPUT RETURN LOSS AND
OUTPUT RETURN LOSS vs. FREQUENCY****TEST CIRCUIT**

TYPICAL PERFORMANCE CURVES (T_A = 25°)

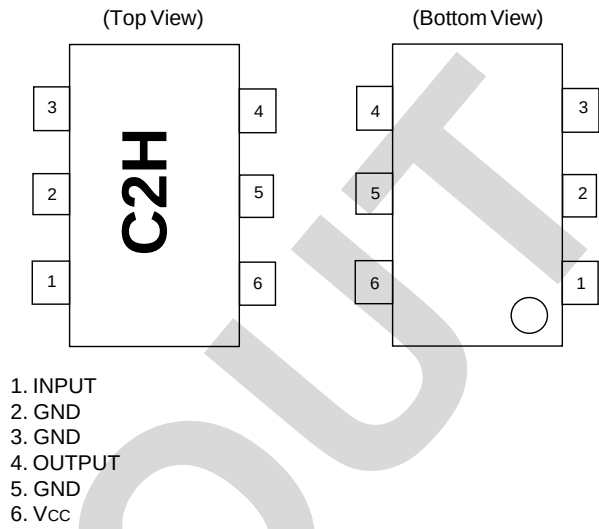


OUTLINE DIMENSIONS (Units in mm)

UPC2771TB
PACKAGE OUTLINE S06



LEAD CONNECTIONS



PIN DESCRIPTION

Pin No.	Pin Name (V)	Applied Voltage	Description	Internal Equivalent Circuit
1	Input	—	Signal input pin. An internal matching circuit, configured with resistors, enables 50 Ω connection over a wide bandwidth. A multi-feedback circuit is designed to cancel the deviations of h_{FE} and resistance. This pin must be coupled to the signal source with a blocking capacitor.	The internal equivalent circuit diagram shows a multi-stage transistor circuit. It includes an input matching network with resistors and capacitors, followed by a multi-feedback circuit. The output stage is a common-emitter amplifier with a load resistor. The circuit is powered by a VCC pin and grounded to GND pins.
4	Output	2.7 to 3.3	Signal output pin. Connect an inductor between this pin and VCC to supply current to the internal output transistors.	
6	VCC		Power supply pin. This pin should be externally equipped with a bypass capacitor to minimize ground impedance.	
2	GND	0	Ground pins. These pins should be connected to system ground with minimum inductance. Ground pattern on the board should be formed as wide as possible. All the ground pins must be connected together with wide ground pattern to minimize impedance difference.	

ORDERING INFORMATION

PART NUMBER	QTY
UPC2771TB-E3-A	3K/Reel

Note: Embossed Tape, 8 mm wide. Pins 1, 2 and 3 face perforated side of tape.

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