ABSOLUTE MAXIMUM RATINGS[1] (T_A = 25°C)

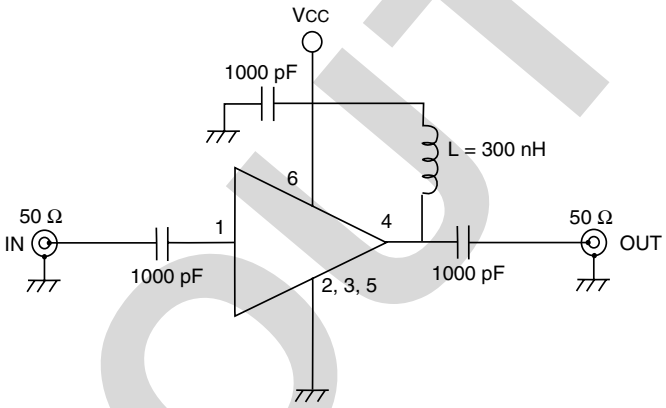
SYMBOLS	PARAMETERS	UNITS	RATINGS
V_{CC}	Supply Voltage	V	3.6
I_{CC}	Total Supply Current	mA	70
P_{IN}	Input Power	dBm	+10
P_T	Total Power Dissipation[2]	mW	270
T_{OP}	Operating Temperature	°C	-40 to +85
T_{STG}	Storage Temperature	°C	-55 to +150

Notes:
1. Operation in excess of any one of these parameters may result in permanent damage.
2. Mounted on a 50 x 50 x 1.6 mm epoxy glass PWB (T_A = 85°C).

RECOMMENDED OPERATING CONDITIONS

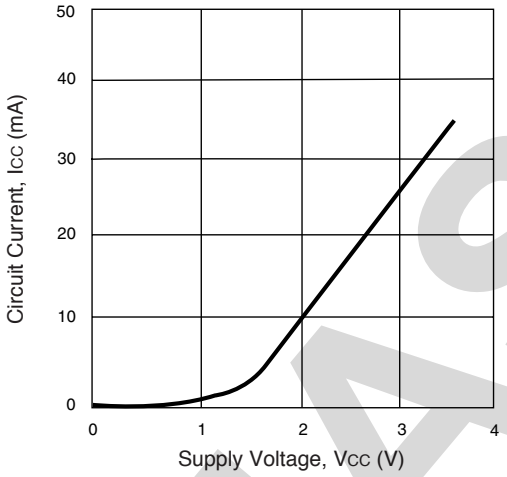
SYMBOLS	PARAMETERS	UNITS	MIN	TYP	MAX
V_{CC}	Supply Voltage	V	2.7	3	3.3
T_{OP}	Operating Temperature	°C	-40	25	85

TEST CIRCUIT

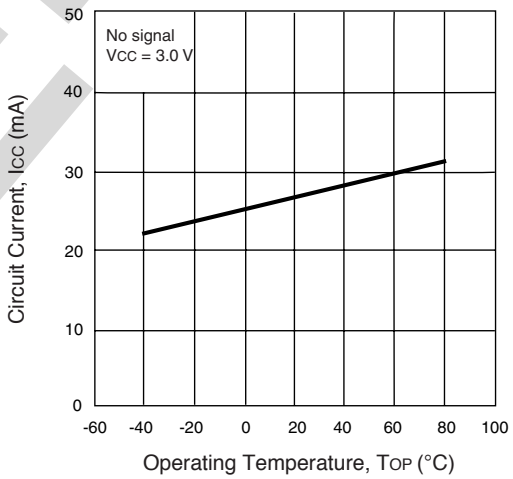


TYPICAL PERFORMANCE CURVES (T_A = 25°C)

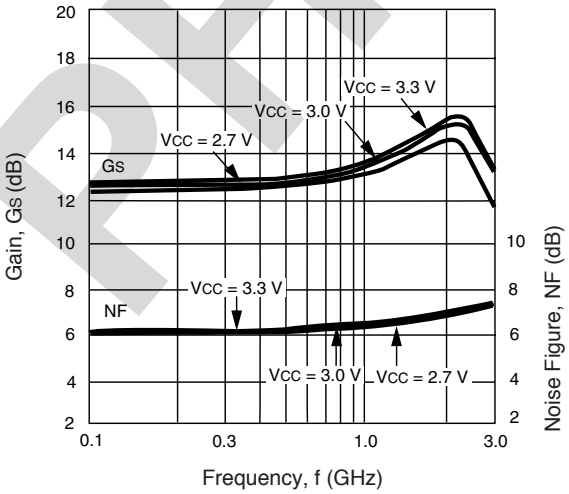
CIRCUIT CURRENT vs. SUPPLY VOLTAGE



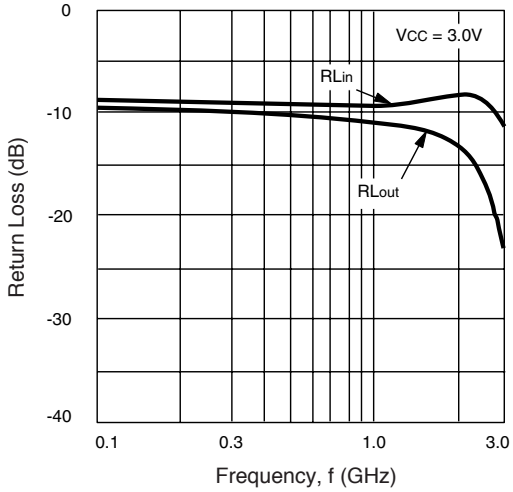
CIRCUIT CURRENT vs. OPERATING TEMPERATURE



NOISE FIGURE AND INSERTION POWER GAIN vs. FREQUENCY AND VOLTAGE

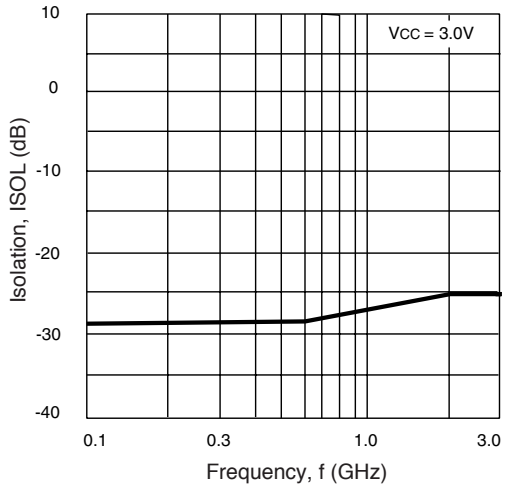


INPUT AND OUTPUT RETURN LOSS vs. FREQUENCY

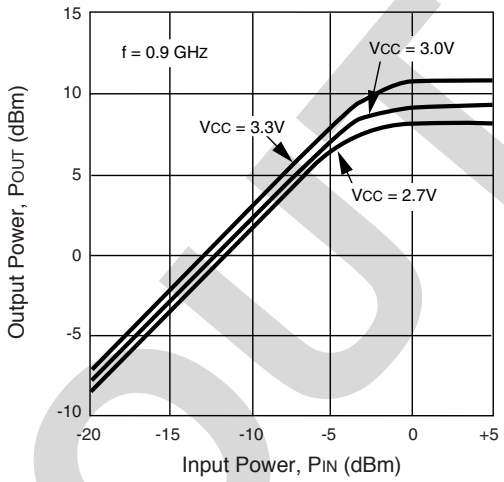


TYPICAL PERFORMANCE CURVES (T_A = 25°C)

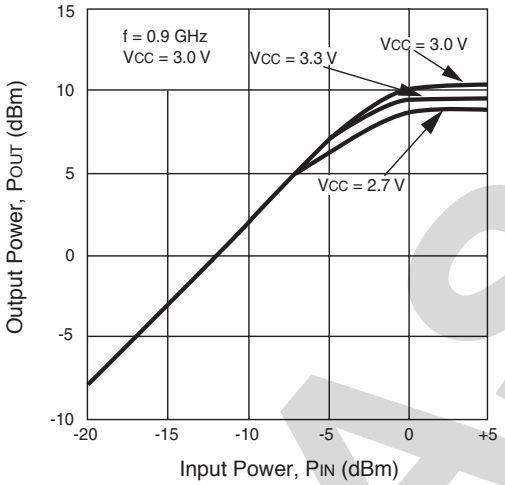
ISOLATION vs. FREQUENCY



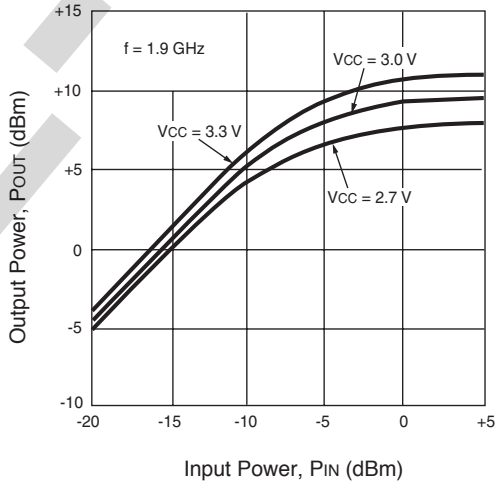
OUTPUT POWER vs. INPUT POWER AND VOLTAGE



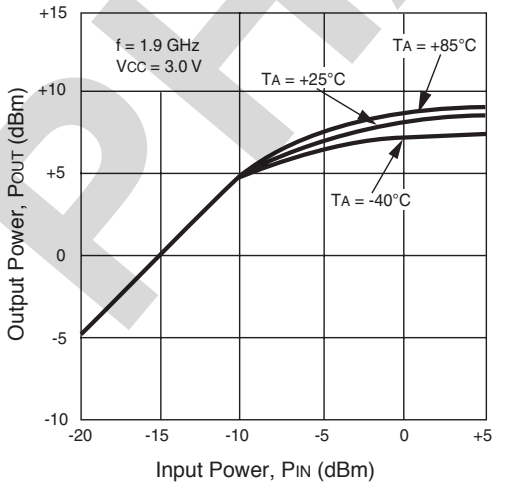
OUTPUT POWER vs. INPUT POWER AND TEMPERATURE



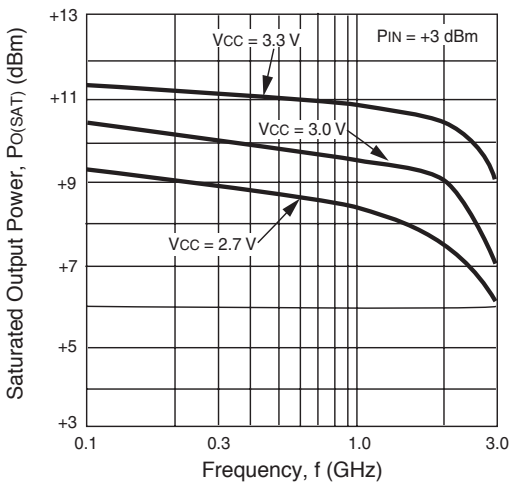
OUTPUT POWER vs. INPUT POWER AND VOLTAGE



OUTPUT POWER vs. INPUT POWER AND TEMPERATURE

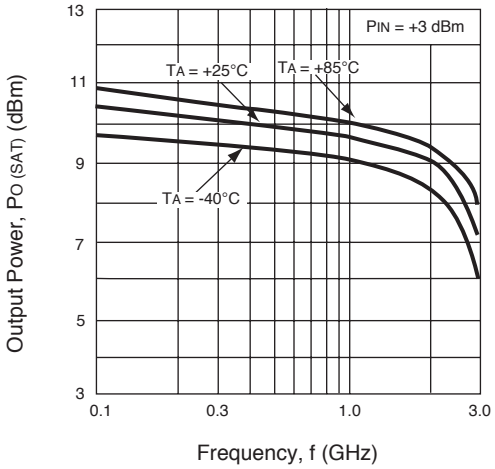


SATURATED OUTPUT POWER vs. FREQUENCY

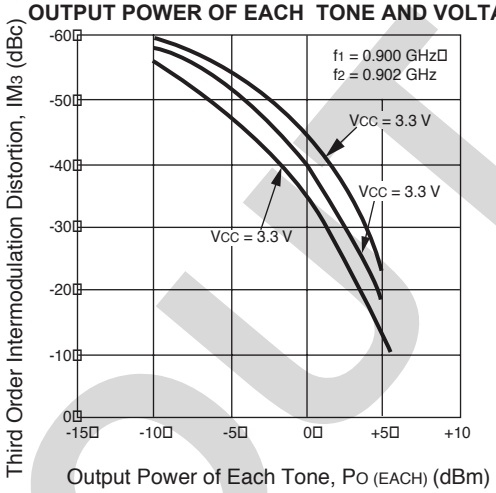


TYPICAL PERFORMANCE CURVES (T_A = 25°C)

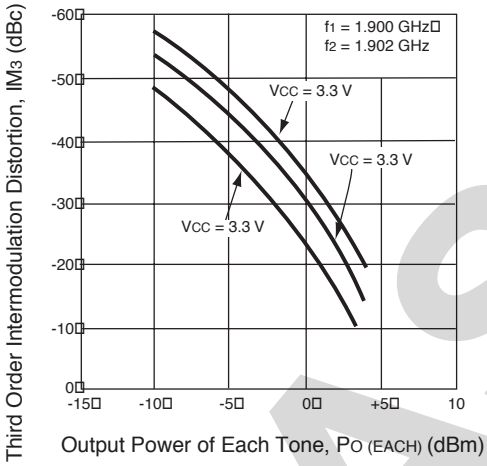
SATURATED OUTPUT POWER vs. FREQUENCY AND TEMPERATURE



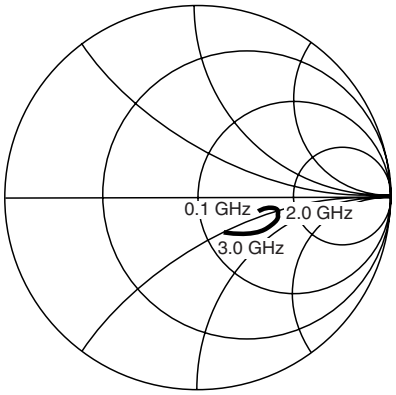
THIRD ORDER INTERMODULATION DISTORTION vs. OUTPUT POWER OF EACH TONE AND VOLTAGE



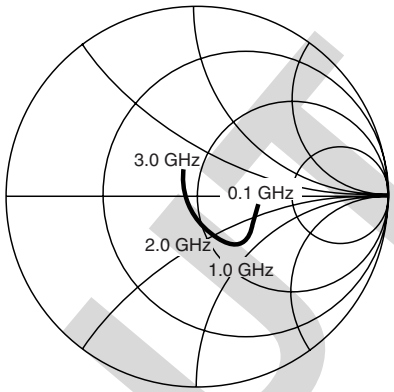
THIRD ORDER INTERMODULATION DISTORTION vs. OUTPUT POWER OF EACH TONE AND VOLTAGE



TYPICAL SCATTERING PARAMETERS (T_A = +25°C, V_{CC} = V_{OUT} = 3.0 V)



S11



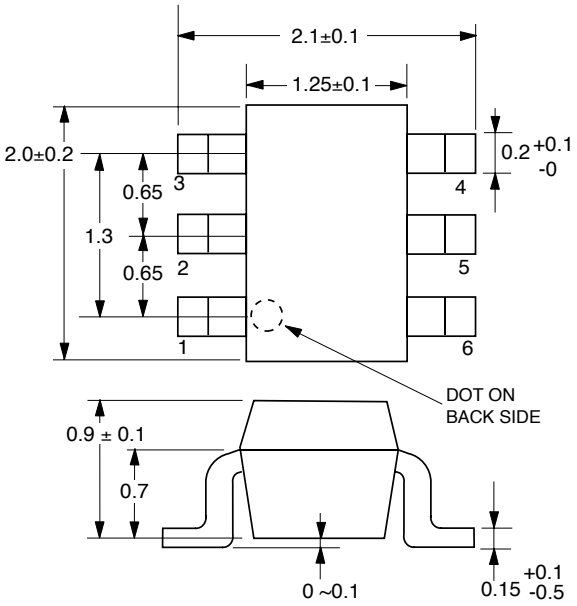
S22

V_{CC} = V_{OUT} = 3.0 V, I_{CC} = 29 mA

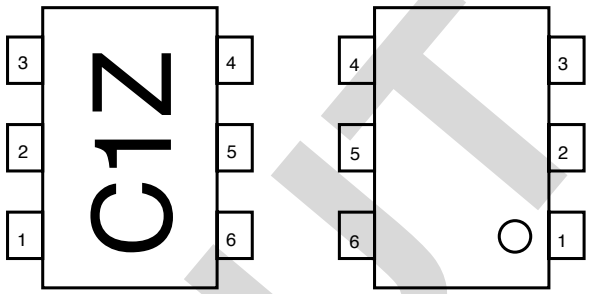
FREQUENCY	S11		S21		S12		S22		K
GHz	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG	
0.1	0.338	-1.3	4.560	-3.4	0.039	1.0	0.310	-5.5	2.23
0.2	0.346	-2.0	4.581	-7.6	0.039	2.7	0.311	-9.5	2.20
0.3	0.348	-1.2	4.616	-11.3	0.039	6.8	0.302	-12.3	2.20
0.4	0.340	-1.9	4.661	-15.8	0.040	8.1	0.296	-16.2	2.18
0.5	0.329	-3.1	4.689	-19.5	0.040	11.6	0.290	-20.2	2.20
0.6	0.324	-6.2	4.726	-23.6	0.041	13.7	0.292	-24.1	2.12
0.7	0.341	-8.1	4.844	-27.4	0.042	15.8	0.291	-26.2	2.01
0.8	0.359	-7.6	4.927	-31.5	0.043	18.1	0.292	-28.3	1.90
0.9	0.378	-6.5	5.057	-35.8	0.044	19.3	0.284	-30.9	1.77
1.0	0.375	-5.1	5.179	-41.0	0.045	20.3	0.280	-35.3	1.72
1.1	0.363	-5.2	5.306	-45.9	0.047	22.1	0.285	-40.0	1.64
1.2	0.353	-6.7	5.400	-51.0	0.047	23.7	0.288	-43.4	1.62
1.3	0.357	-8.8	5.567	-56.5	0.048	26.1	0.288	-45.7	1.54
1.4	0.377	-11.7	5.706	-61.7	0.049	24.5	0.285	-47.9	1.44
1.5	0.402	-12.7	5.820	-68.0	0.052	26.7	0.282	-52.8	1.32
1.6	0.414	-13.2	5.987	-73.7	0.052	26.8	0.285	-58.1	1.27
1.7	0.426	-13.6	6.081	-80.1	0.055	29.0	0.288	-62.0	1.18
1.8	0.434	-16.1	6.182	-86.7	0.056	28.2	0.291	-66.1	1.14
1.9	0.448	-19.0	6.229	-93.2	0.057	28.5	0.286	-70.4	1.09
2.0	0.463	-21.7	6.328	-99.7	0.057	28.0	0.282	-76.2	1.07
2.1	0.483	-23.9	6.382	-106.7	0.058	28.5	0.282	-81.5	1.01
2.2	0.492	-25.8	6.431	-113.8	0.058	29.0	0.282	-86.9	0.99
2.3	0.492	-29.7	6.424	-121.2	0.060	30.1	0.278	-91.7	0.99
2.4	0.486	-34.6	6.329	-128.8	0.060	30.2	0.268	-98.4	1.01
2.5	0.489	-40.4	6.146	-136.1	0.062	31.1	0.260	-104.5	1.02
2.6	0.500	-44.6	5.997	-143.1	0.061	32.1	0.251	-111.3	1.05
2.7	0.511	-48.5	5.822	-149.9	0.064	31.4	0.248	-116.7	1.03
2.8	0.511	-50.4	5.693	-157.0	0.066	34.0	0.237	-121.5	1.04
2.9	0.494	-52.9	5.553	-163.0	0.065	33.8	0.222	-128.3	1.11
3.0	0.465	-55.9	5.334	-169.5	0.065	35.5	0.203	-134.5	1.20
3.1	0.441	-60.6	5.157	-175.5	0.066	35.5	0.189	-141.1	1.27

OUTLINE DIMENSIONS (Units in mm)

PACKAGE OUTLINE S06

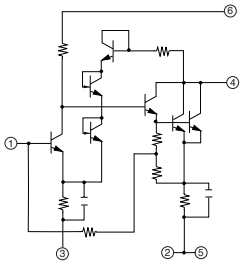


LEAD CONNECTIONS



1. INPUT
2. GND
3. GND
4. OUTPUT
5. GND
6. Vcc

PIN DESCRIPTIONS

Pin No.	Pin Name	Applied Voltage (V)	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.	
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 3 5	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
UPC2762TB-E3-A	3K/Reel

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

06/12/2000

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