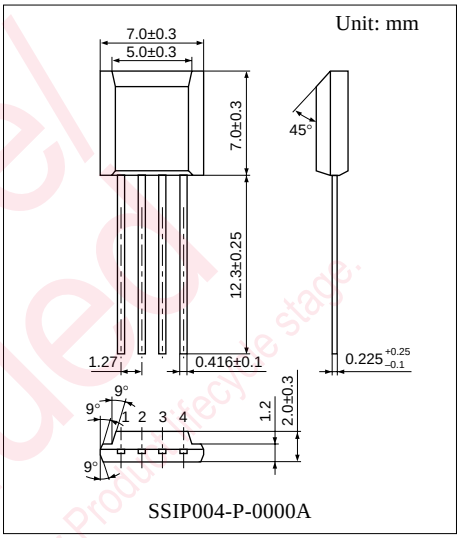
AN607P

Wide bandwidth video amplifier IC (inverting amplifier)

■ Overview

The AN607P is an amplifier IC with a 20 dB gain, a phase inverted output and a wide bandwidth (10 MHz). It is best suited to video amplifier and sense amplifier.



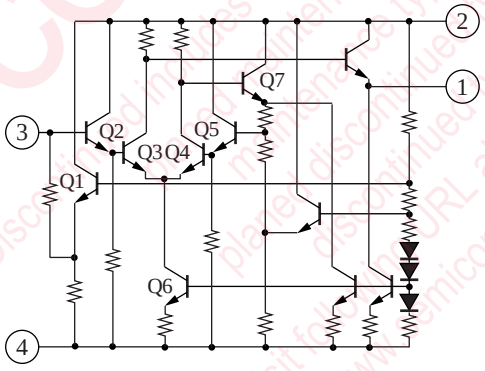
■ Features

- Wide bandwidth (10 MHz)
- 20 dB, phase inverting amplifier
- 4-pin SIP plastic package

■ Applications

- Video amplifier, sense amplifier

■ Equivalent Circuit



■ Pin Descriptions

Pin No.	Description
1	Output
2	Supply voltage
3	Input
4	GND

■ Absolute Maximum Ratings at T_a = 25°C

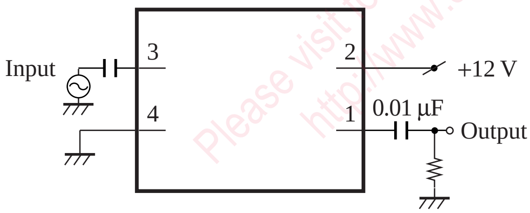
Parameter	Symbol	Rating	Unit
Supply voltage	V_{2-4}	14.4	V
Circuit voltage	V_{3-4}	V_{2-4} to −1	V
Total consumption current	I_2	11	mA
Circuit current	I_3	+1 to − 0.5	mA
	I_1	0 to −5	
Total power dissipation	P_{TOT}	160	mW
Operating ambient temperature	T_{opr}	−20 to +70	°C
Storage temperature	T_{stg}	−40 to +125	°C

Note) Do not apply current and voltage to the pins not described. The mark '+' means the current flowing into the IC and the mark '−' means the current flowing out of the IC.

■ Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Circuit current	I_2	V_{CC} = 12 V	5.0		9.0	mA
Video signal output pin voltage	V_{1-4}	V_{CC} = 12 V	5.0		8.0	V
Video signal input pin voltage	V_{3-4}	V_{CC} = 12 V	1.9		3.5	V
Maximum output voltage	V_{OM}	f = 10 kHz, R_L = 1.5 kΩ	2			V[p-p]
Output voltage 1	$V_{O(1)}$	f = 10 kHz, V_I = 0.1 V[p-p]	0.8		1.1	V[p-p]
Output voltage 2	$V_{O(2)}$	V_I = 0.2 V[p-p]	1.5		2.2	V[p-p]
Frequency characteristics	$\Delta V_{O(f1)}$	V_I = 0.1 V[p-p], f = 1 MHz to 5 MHz	−1		+1	dB
Frequency characteristics	$\Delta V_{O(f2)}$	V_I = 0.1 V[p-p], f = 1 MHz to 10 MHz	−1		+2	dB
Total harmonics distortion ratio	THD	f = 10 kHz			1	%

■ Basic Circuit



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