

AN607P

Wide bandwidth video amplifier IC (inverting amplifier)

■ Overview

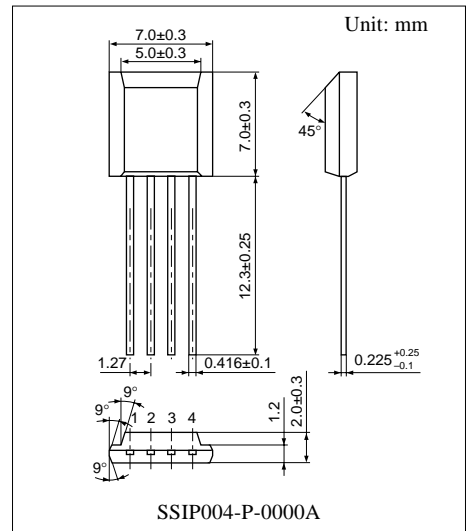
The AN607P is an amplifier IC with a 20 dB gain, a phase inverted output and a wide bandwidth (10 MHz). It is best suited to video amplifier and sense amplifier.

■ Features

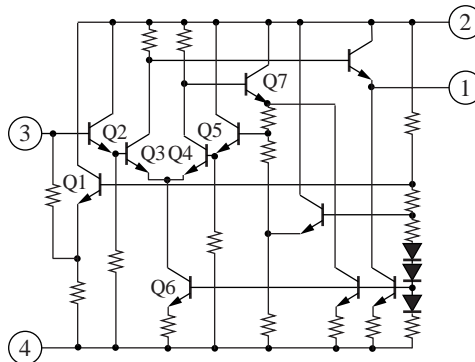
- Wide bandwidth (10 MHz)
- 20 dB, phase inverting amplifier
- 4-pin SIP plastic package

■ 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 $T_a = 25^\circ\text{C}$

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 $+70$	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to $+125$	$^\circ\text{C}$

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

■ Basic Circuit

