

AN607P

Wide bandwidth video amplifier IC (inverting amplifier)

Overview

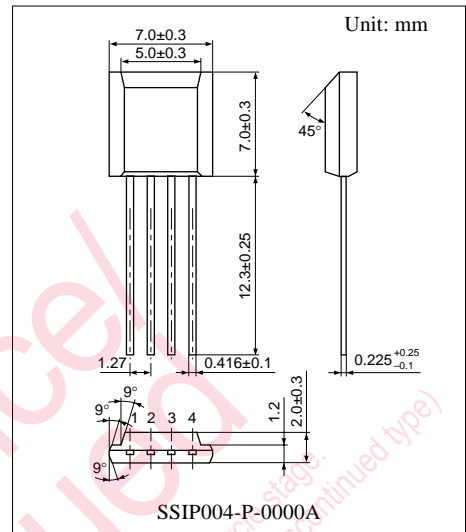
The AN607P is an amplifier IC with a 20 dB gain, a phase inverted output and a wide bandwidth (10 MHz). It is best suited to video amplifier and sense amplifier.

Features

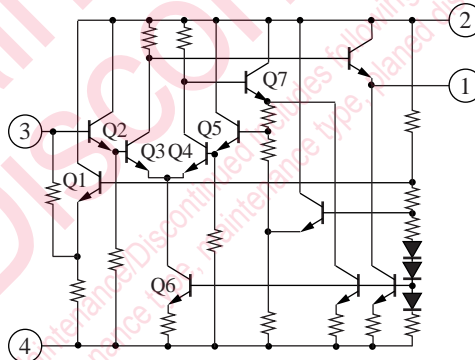
- Wide bandwidth (10 MHz)
- 20 dB, phase inverting amplifier
- 4-pin SIP plastic package

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 $T_a = 25^\circ\text{C}$

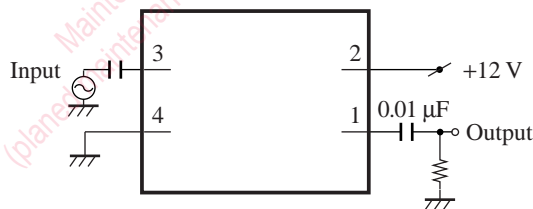
Parameter	Symbol	Rating	Unit
Supply voltage	V_{2-4}	14.4	V
Circuit voltage	V_{3-4}	$V_{2-4} \text{ to } -1$	V
Total consumption current	I_2	11	mA
Circuit current	I_3	+1 to -0.5	mA
	I_1	0 to -5	
Total power dissipation	P_{TOT}	160	mW
Operating ambient temperature	T_{opr}	-20 to +70	$^\circ\text{C}$
Storage 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	$V_{\text{CC}} = 12 \text{ V}$	5.0		9.0	mA
Video signal output pin voltage	V_{1-4}	$V_{\text{CC}} = 12 \text{ V}$	5.0		8.0	V
Video signal input pin voltage	V_{3-4}	$V_{\text{CC}} = 12 \text{ V}$	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	$V_{\text{O(1)}}$	$f = 10 \text{ kHz}, V_I = 0.1 \text{ V[p-p]}$	0.8		1.1	V[p-p]
Output voltage 2	$V_{\text{O(2)}}$	$V_I = 0.2 \text{ V[p-p]}$	1.5		2.2	V[p-p]
Frequency characteristics	$\Delta V_{\text{O(f1)}}$	$V_I = 0.1 \text{ V[p-p]}, f = 1 \text{ MHz to } 5 \text{ MHz}$	-1		+1	dB
Frequency characteristics	$\Delta V_{\text{O(f2)}}$	$V_I = 0.1 \text{ V[p-p]}, f = 1 \text{ MHz to } 10 \text{ MHz}$	-1		+2	dB
Total harmonics distortion ratio	THD	$f = 10 \text{ kHz}$			1	%

■ Basic Circuit



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