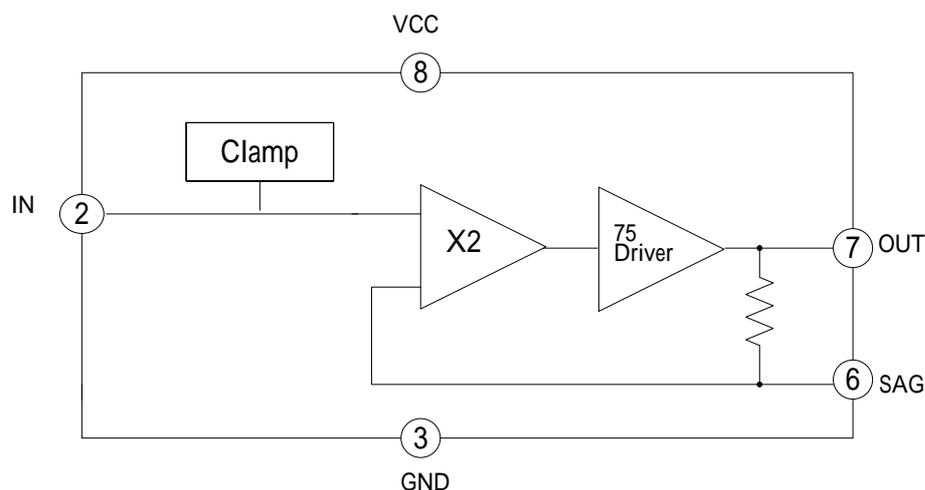


**PRELIMINARY****VIDEO AMPLIFIER****■ FEATURE**

1. Operating voltage 2.8V~5.5V
2. Composite video driver with 6dB gain
3. SAG correction function
4. Low power consumption, 45mw typical
5. Internal voltage clamp circuit

**■ DESCRIPTION**

AA8500AP is a video driver with 6dB gain, 75Ω output buffer and SAG correction. The SAG could reduce the output coupling capacitor. It supports 3V and 5V operating voltage, and is ideal for video output device, ranging from portable digital still camera and stationary equipment such as DVD player. The IC is available in 8-pin TSSOP.

**■ AA8500AP BLOCK DIAGRAM**

**PRELIMINARY****VIDEO AMPLIFIER**

■ **PIN DESCRIPTION**

Symbol	Pin No	Type	Function
N/C	1	-	N/C pin
IN	2	I	Composite Y input signal is clamped input
GND	3	-	Ground
N/C	4	-	N/C pin
N/C	5	-	N/C pin
SAG	6	O	SAG correction to reduce the capacitance of output coupling capacitor
OUT	7	O	Composite video signal output.
VCC	8	-	2.8V~5.5V power supply

■ **ABSOLUTE MAXIMUM RATING**

Ta = 25

Parameter	Symbol	Rating			UNIT	CONDITION
		MIN	TYP	MAX		
Supply Voltage	Vcc	-0.3		7	V	
Operating Ambient Temperature	Ta	-25		75		
Storage Temperature	Ts	-55		125		

NOTE : Stress above those listed under “Absolute Maximum Rating” may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational section of this specification is not implied. Exposure to absolute maximum rating conditions for the extended periods of time may affect device reliability.

**PRELIMINARY****VIDEO AMPLIFIER**

■ **ELECTRICAL CHARACTERISTICS**

$T_a = 25$  ,  $V_{cc} = 3V$

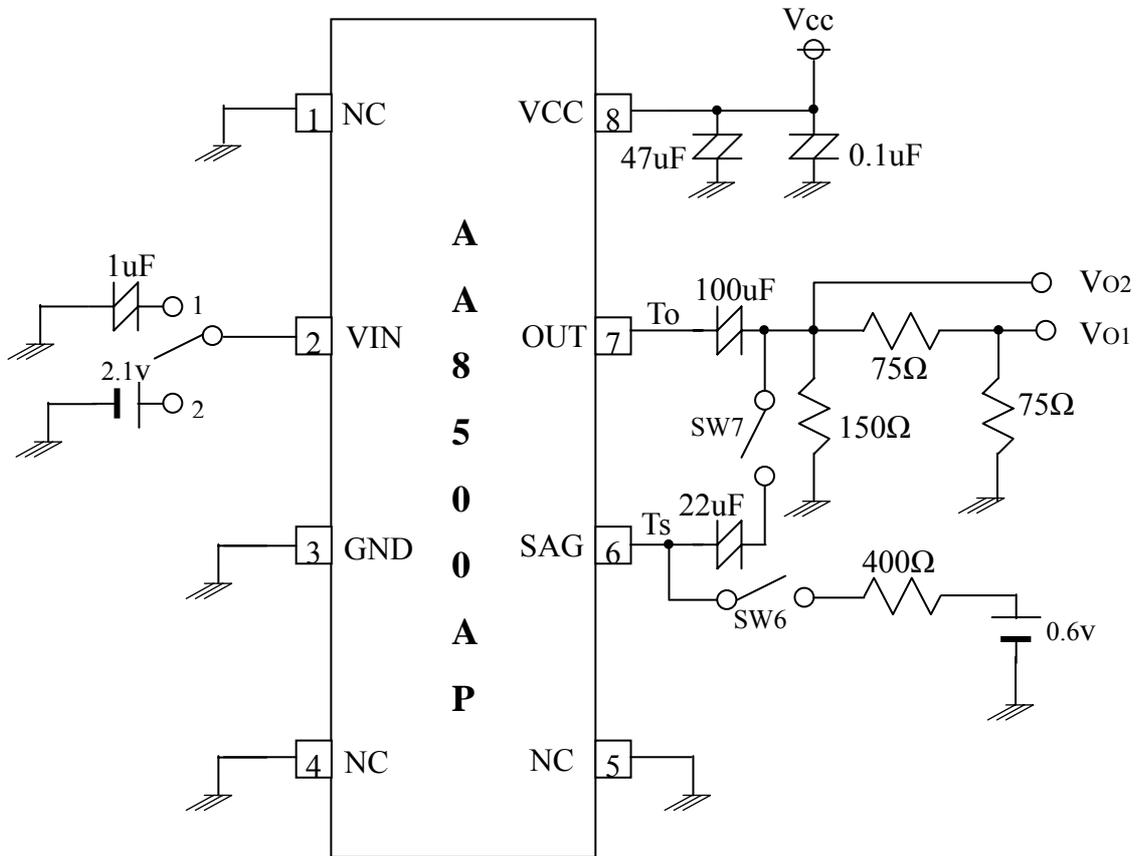
Parameter	Symbol	Min	Typ	Max	Unit	Condition
Supply Current	I <sub>cc</sub>		15	20	mA	No input Signal
Input terminal voltage	V <sub>IN</sub>		1.28		V	
Output terminal voltage	V <sub>OUT</sub>	0.12		0.35	V	
Voltage gain	G <sub>v</sub>	5.7	6.0	6.3	dB	SIN wave: 1V, f=100kHz
Frequency Characteristic	G <sub>F</sub>	-0.5	-0.5	0.5	dB	Input Signal Freq = 7MHz/1MHz, 1VP-P, measure VO1
Clamp Voltage			1.4		V	
Output DC level			1.2		V	



**PRELIMINARY**

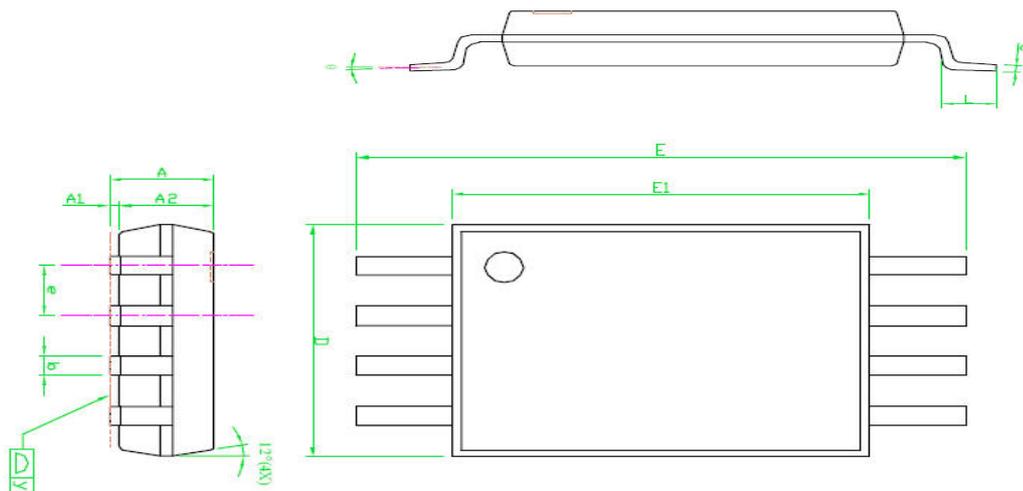
**VIDEO AMPLIFIER**

■ **MEASUREMENT CIRCUIT**



**PRELIMINARY****VIDEO AMPLIFIER**

■ **TSSOP 8 PACKAGE DIMENSION**



## NOTES:

1. Package body sizes exclude mold flash protrusions or gate burrs
2. Tolerance  $\pm 0.1$  mm (4 mil) unless otherwise specified, Coplanarity: 0.1 mm
3. Controlling dimension is millimeter converted inch dimensions are not necessarily exact
4. Followed from jedec mo-153

SYMBOLS	DIMENSIONS IN MILLIMETERS			DIMENSIONS IN INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	---	---	1.20	---	---	0.048
A1	0.05	---	0.15	0.002	---	0.006
A2	0.80	1.00	1.05	0.031	0.039	0.041
b	0.19	---	0.30	0.007	---	0.012
C	0.09	---	0.20	0.004	---	0.008
D	2.90	3.00	3.10	0.114	0.118	0.122
E	6.20	6.40	6.60	0.244	0.252	0.260
E1	4.30	4.40	4.50	0.169	0.173	0.177
e	---	0.65	---	---	0.026	---
L	0.45	0.60	0.75	0.018	0.024	0.030
y	---	---	0.10	---	---	0.004
$\theta$	0°	---	8°	0°	---	8°