



**PRELIMINARY**

**Three Channels Video Driver**

■ **DESCRIPTION**

AA7623SP is a three channels video driver, with 75Ω output buffer, and it supports 5V operation voltage. The 75Ω buffer is capable of driving two circuits. The DC potential for the previous stage can be used for direct DC-couple, because the input is coming directly with no internal bias or clamp. The IC is available in **8-pin SOP** package.

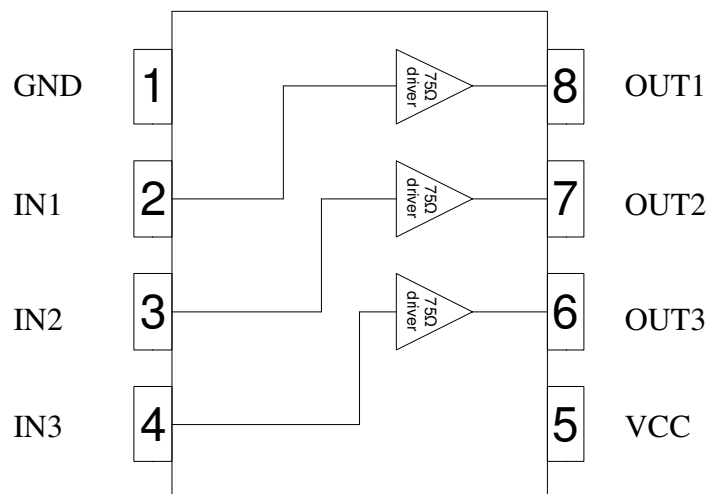
■ **FEATURES**

- 1. Composite video driver
- 2. Support 5V operation voltage
- 3. Three channels video driver
- 4. Output short circuit protection function
- 5. A load sufficient for driving two circuits
- 6. Low operating current, 17mA typical
- 7. SOP-8 package
- 8. DC-Couple output

■ **APPLICATION**

- VCR
- Video Camera
- TV
- Video Player

■ **AA7623SP BLOCK DIAGRAM**





**PRELIMINARY**

**Three Channels Video Driver**

■ **PIN DESCRIPTION**

Symbol	Pin No	Type	Function
<b>GND</b>	1	-	Ground
<b>IN1</b>	2	I	Channel 1 input terminal of composite signal
<b>IN2</b>	3	I	Channel 2 input terminal of composite signal
<b>IN3</b>	4	I	Channel 3 input terminal of composite signal
<b>VCC</b>	5	-	5V Power Supply
<b>OUT3</b>	6	O	Channel 3 output
<b>OUT2</b>	7	O	Channel 2 output
<b>OUT1</b>	8	O	Channel 1 output

■ **ABSOLUTE MAXIMUM RATING**

Ta = 25 °C

Parameter	Symbol	Rating			UNIT	CONDITION
		MIN	TYP	MAX		
<b>Supply Voltage</b>	<b>Vcc</b>	-0.3	3	7	V	
<b>Operating Ambient Temperature</b>	<b>Ta</b>	-40		85	°C	
<b>Storage Temperature</b>	<b>Ts</b>	-40		125	°C	

NOTE : Stress above those listed under “Absolute Maximum Rating” may cause device permanent damage to the device. This stress-rating only factor 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 an extended period of time may affect device reliability of the device.



**PRELIMINARY**

**Three Channels Video Driver**

■ **ELECTRICAL CHARACTERISTICS**

Ta = 25°C , Vcc = 5V

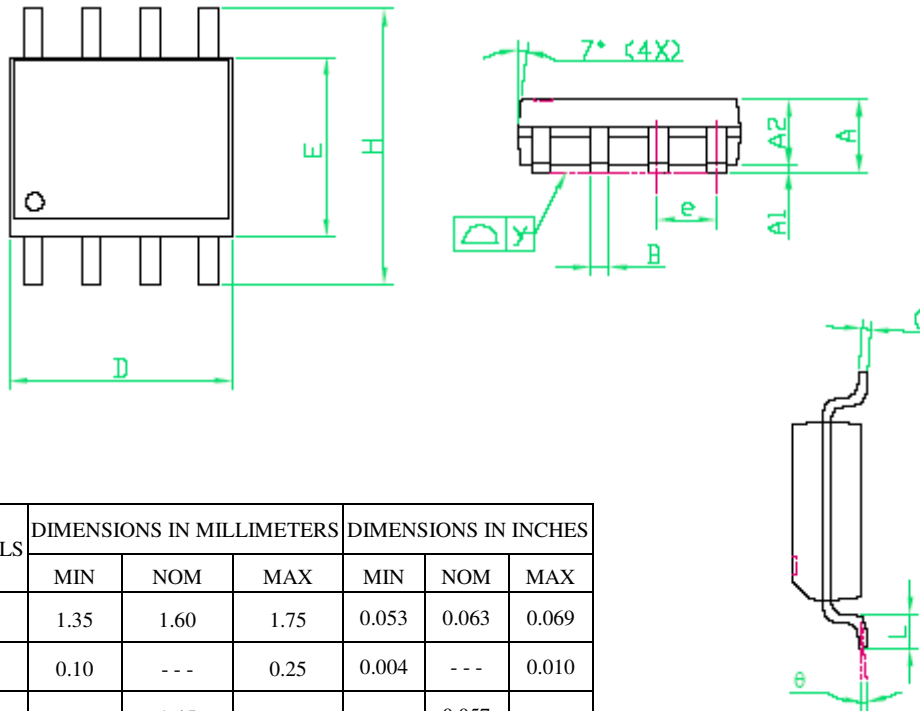
Parameter	Symbol	Min	Typ	Max	Unit	Condition
Supply Current	Icc		17	20	mA	No input Signal
Voltage Gain	Gv		-0.5	0	dB	Input Signal Freq = 4.43MHz, 2V <sub>pp</sub> , measure OUT
Frequency Characteristic	GF	-3	0	1	dB	Input Signal Freq = 7MHz/1MHz, 2V <sub>pp</sub> , measure OUT
Maximum Output level	Vom	2.9	3.4		V <sub>pp</sub>	f=1kHz, THD=10%
Differential Gain	DG		0.4	1.0	%	V <sub>IN</sub> = 2V <sub>PP</sub> , refer staircase signal
Differential Phase	DP		0.4	1.0	deg	V <sub>IN</sub> = 2V <sub>PP</sub> , refer staircase signal
Crosstalk	CT		-60		dB	V <sub>IN</sub> =2V <sub>PP</sub> 4.43M Sinewave



**PRELIMINARY**

**Three Channels Video Driver**

■ **SOP-8 – AA7623SP – PACKAGE DIMENSION**



SYMBOLS	DIMENSIONS IN MILLIMETERS			DIMENSIONS IN INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.35	1.60	1.75	0.053	0.063	0.069
A1	0.10	---	0.25	0.004	---	0.010
A2	---	1.45	---	---	0.057	---
b	0.33	---	0.51	0.013	---	0.020
C	0.19	---	0.25	0.007	---	0.010
D	4.80	---	5.00	0.189	---	0.197
E	3.80	---	4.00	0.150	---	0.157
e	---	1.27	---	---	0.050	---
H	5.80	---	6.20	0.228	---	0.244
L	0.40	---	1.27	0.016	---	0.050
y	---	---	0.10	---	---	0.004
θ	0°	---	8°	0°	---	8°

NOTES:

1. Package body sizes exclude moldflash protrusions or gate burns.
2. Tolerance  $\pm 0.1$  mm (4 mil) unless otherwise specified
3. Coplanarity: 0.1 mm
4. Controlling dimension is millimeter converted inch dimensions are not necessarily exact
5. Followed from JEDEC MS-012