

Video signal switcher for AV amplifiers

BA7626/BA7626F/BA7626FS

The BA7626 and BA7626F and BA7626FS are video signal switches that two five-channel analog multiplexers for switching chroma and audio signals, and two wide-band 6dB amplifiers. By simply adding transistor buffer to the outputs, it is possible to construct a record / playback switch for two record / playback VCRs, and three video playback machines (eg. laser desk players). Input switching and VCR record switching can be done independently. The inputs are terminated with 20k Ω resistors, and are suitable for switching chroma and audio signals.

●Applications

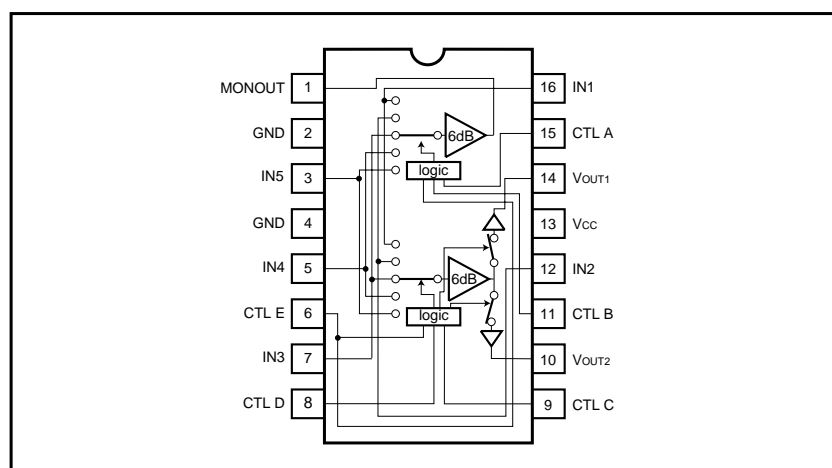
AV amplifiers (audio signals and S-pin chroma signals) and video selectors

●Features

- 1) 5-input / 3-output switches.
- 2) 20k Ω input impedance.

- 3) Built-in 6dB amplifiers.
- 4) 5V supply voltage.

●Block diagram



●Truth table

A	B	E	MONOUT
L	L	*	IN1
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	V _{OUT1}
L	L	*	—
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	V _{OUT2}
L	L	*	IN1
H	L	*	—
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

Note 1: * indicates "don't care" (H or L).

Multimedia ICs

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power supply voltage	V _{CC}	9	V
Power dissipation	BA7626	500*1	mW
	BA7626F	300*2	
	BA7626FS	600*3	
Operating temperature	T _{opr}	–25 to +70	°C
Storage temperature	T _{stg}	–55 to +125	°C

*1 Reduced by 5.0mW for each increase in Ta of 1°C over 25°C. (BA7626)

*2 Reduced by 3.0mW for each increase in Ta of 1°C over 25°C. (BA7626F)

*3 Reduced by 6.5mW for each increase in Ta of 1°C over 25°C. (BA7626FS)

●Equivalent input / output circuits (Unless otherwise noted, Ta=25°C, V_{CC}=5V)

Pin No.	Pin name	Standard voltage (no input signal)	Equivalent input / output circuit
3 5 7 12 16	IN5 IN4 IN3 IN2 IN1	3.6V	
6 8 9 11 15	CTL E CTL D CTL C CTL B CTL A	0.6V	
1	MONOUT	2.0V	
10 14	V _{OUT2} V _{OUT1}	2.0V	

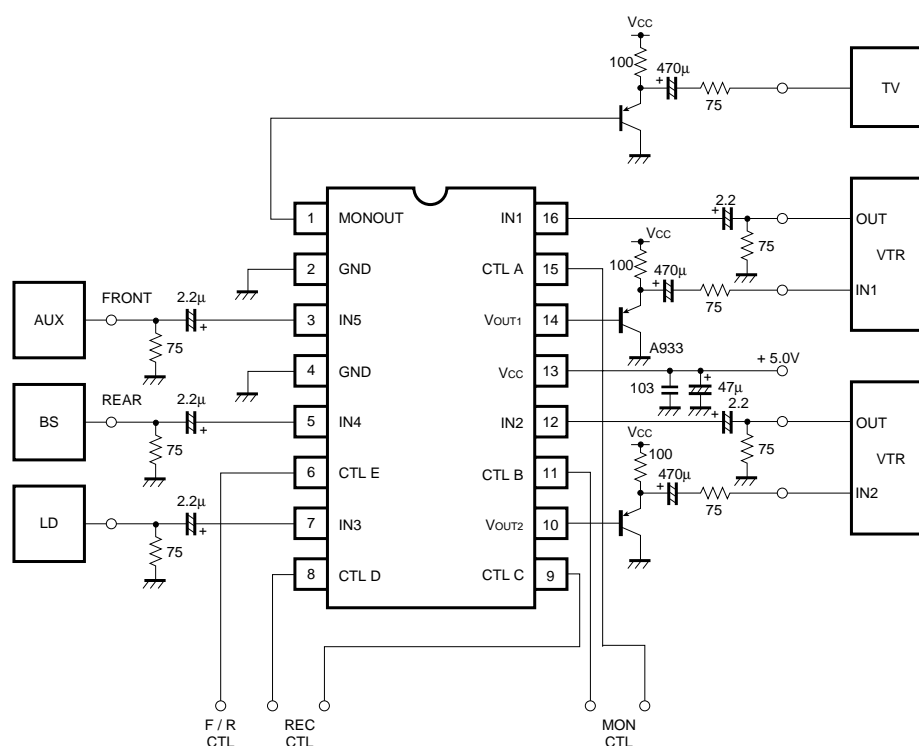
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● Electrical characteristics (Unless otherwise noted, Ta=25°C, Vcc=5V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Operating voltage	V _{CC}	4.5	5.0	5.5	V	—
Supply current	I _{CC}	—	15.0	20.0	mA	—
Maximum output level	V _{om}	2.3	2.5	—	V _{P-P}	f = 1kHz, THD = 0.5%
Voltage gain	G _V	5.7	6.2	6.7	dB	f = 1MHz, V _{IN} = 1V _{P-P}
Interchannel crosstalk	C _T	—	-65	-45	dB	f = 4.43MHz, V _{IN} = 1V _{P-P}
Mute level	CTM	—	-35	-25	dB	f = 4.43MHz, V _{IN} = 1V _{P-P}
Frequency characteristic	G _f	-3	0	+3	dB	10MHz / 1MHz, V _{IN} = 1V _{P-P}
Input impedance	Z _{IN}	16	20	24	kΩ	—
CTL pin switch level	V _{TH}	2.2	—	3.3	V	—

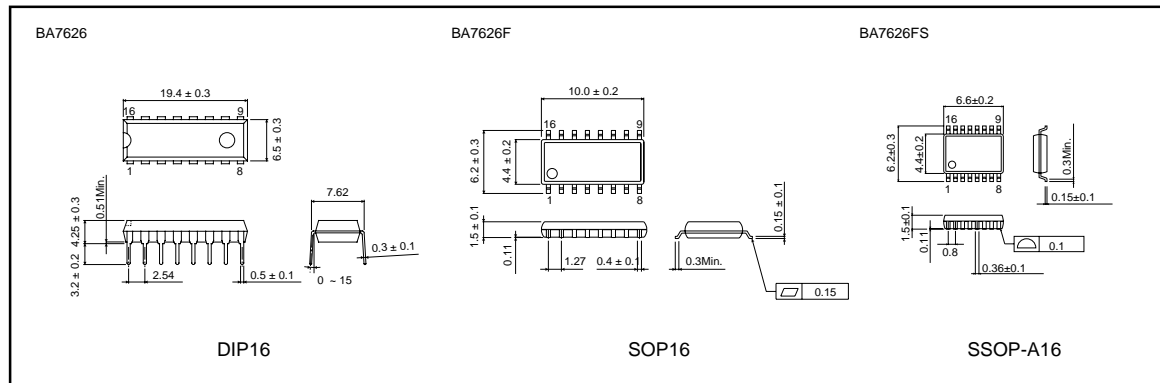
○ Not designed for radiation resistance.

● Application example



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●External dimensions (Unit : mm)



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