

High performance video signal switcher

# Five inputs Dual Circuits Video Signal Switchers

## BA7626F/FS

### •Description

The BA7626F/FS is a 5-input video signal switching circuit with a broadband 6 dB amplifier that was developed for AV amplifier input switching. Just by devising a transistor buffer in the output, player switching of two VCR or other videotape players and three DVD players or other playback devices is possible. Moreover, input switching and switching of recording to a VCR or other device also can be performed independently.

Since the input circuit of the BA7626F/FS is terminated by 20kΩ impedance, it is suited to not only video signal but also chroma signal or audio signal switching.

### •Features

- 1) 5 input line, 3 output line switching
- 2) Built-in 6 dB amplifier
- 3) 5V operating voltage
- 4) 20kΩ input impedance

### •Use

AV amplifiers, Video selectors, etc.

### •Lineup

Part No.	BA7626F	BA7626FS
Package	SOP16	SSOP-A16
Input type	Bias (R=20kΩ)	

### •Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	Vcc	9	V
Power dissipation	BA7626F	300 ※1	mW
	BA7626FS	600 ※2	
Operating temperature	Topr	-25~+70	°C
Storage temperature	Tstg	-55~+125	°C

※1 Deratings is done at 3.0mW/°C above Ta=25°C. (BA7626F)

※2 Deratings is done at 6.0mW/°C above Ta=25°C. (BA7626FS)

### •Operating Range(Ta=25°C)

Parameter	Symbol	Min	Typ	Max	Unit
Power supply voltage	Vcc	4.5	5.0	5.5	V

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●Electrical characteristics (Unless otherwise noted Ta=25°C, Vcc=5.0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current	ICC	—	15.0	20.0	mA	—
Maximum output level	BA7626F/FS Vom	2.3	2.5	—	Vp-p	f=1kHz, THD=0.5%
Voltage gain	G <sub>V</sub>	5.7	6.2	6.7	dB	f=1MHz, V <sub>IN</sub> =1Vp-p
Interchannel crosstalk	G <sub>T</sub>	—	-65	-45	dB	f=4.43MHz, V <sub>IN</sub> =1Vp-p
Mute level	CTM	—	-35	-25	dB	f=4.43MHz, V <sub>IN</sub> =1Vp-p
Frequency characteristic	G <sub>f</sub>	-3	0	+3	dB	10MHz/1MHz, V <sub>IN</sub> =1Vp-p
Input impedance	Z <sub>IN</sub>	16	20	24	kΩ	
CTL pin switching level	V <sub>TH</sub>	2.2	—	3.3	V	—

※ This product is not designed for protection against radioactive rays.

●Truth table

Input			Output	Input			Output	Input			Output
A	B	E	MONOUT	C	D	E	VOUT1	C	D	E	VOUT2
L	L	※	IN1	L	L	※	—	L	L	※	IN1
H	L	※	IN2	H	L	※	IN2	H	L	※	—
L	H	※	IN3	L	H	※	IN3	L	H	※	IN3
H	H	L	IN4	H	H	L	IN4	H	H	L	IN4
H	H	H	IN5	H	H	H	IN5	H	H	H	IN5

※ Indicates "don't care"(H or L)

●Block diagram

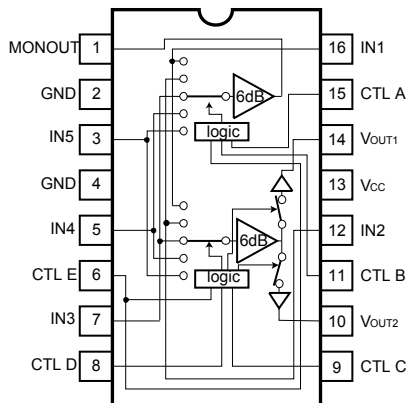


Fig.1

●Application circuit

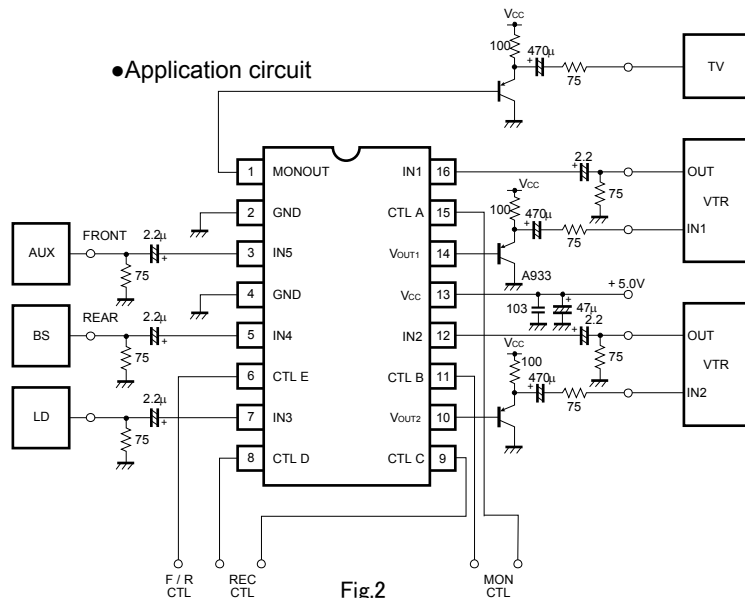


Fig.2

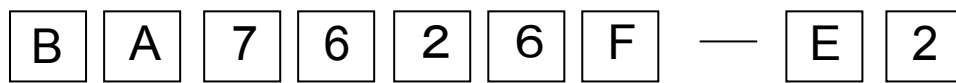
●Cautions on use

- 1) Numbers and data in entries are representative design values and are not guaranteed values of the items.
- 2) Although we are confident in recommending the sample application circuits, carefully check their characteristics further when using them. When modifying externally attached component constants before use, determine them so that they have sufficient margins by taking into account variations in externally attached components and the Rohm LSI, not only for static characteristics but also including transient characteristics.
- 3) Absolute maximum ratings  
If applied voltage, operating temperature range, or other absolute maximum ratings are exceeded, the LSI may be damaged. Do not apply voltages or temperatures that exceed the absolute maximum ratings. If you think of a case in which absolute maximum ratings are exceeded, enforce fuses or other physical safety measures and investigate how not to apply the conditions under which absolute maximum ratings are exceeded to the LSI.
- 4) GND potential  
Make the GND pin voltage such that it is the lowest voltage even when operating below it. Actually confirm that the voltage of each pin does not become a lower voltage than the GND pin, including transient phenomena.
- 5) Thermal design  
Perform thermal design in which there are adequate margins by taking into account the allowable power dissipation in actual states of use.
- 6) Shorts between pins and misinstallation  
When mounting the LSI on a board, pay adequate attention to orientation and placement discrepancies of the LSI. If it is misinstalled and the power is turned on, the LSI may be damaged. It also may be damaged if it is shorted by a foreign substance coming between pins of the LSI or between a pin and a power supply or a pin and a GND.
- 7) Operation in strong magnetic fields  
Adequately evaluate use in a strong magnetic field, since there is a possibility of malfunction.

●Pin descriptions (Ta=25°C, VCC=5V)

Pin No.	Pin name	Equivalent circuit
		BA7626F/FS
3 5 7 12 16	IN5 IN4 IN3 IN2 IN1	
6 8 9 11 15	CTL E CTL D CTL C CTL B CTLA	
1	MONOUT	
10 14	VOUT2 VOUT1	

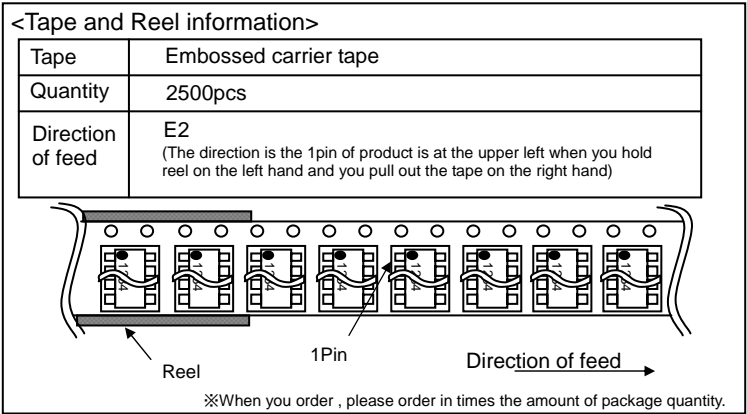
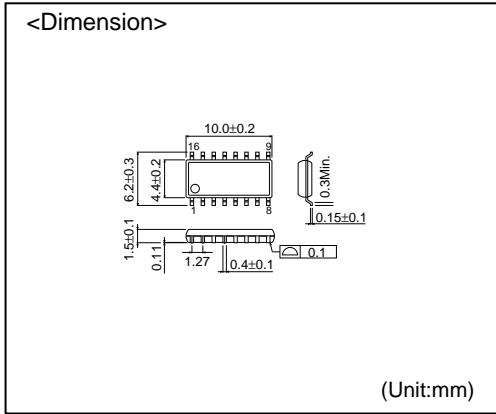
●Selection of order type



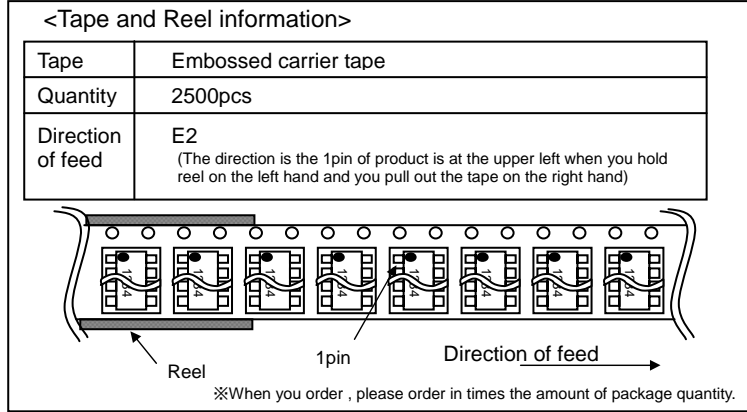
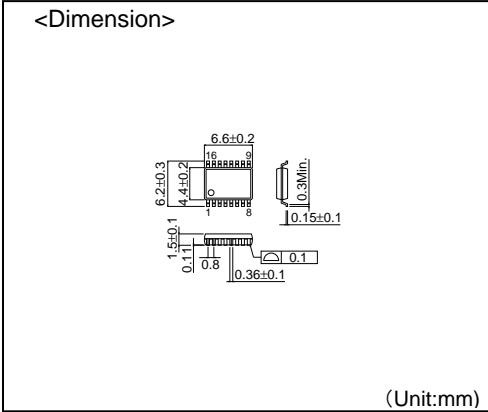
Part. No.  
BA7626F  
BA7626FS

Tape and Reel information  
BA7626F...E2(Embossed carrier tape)  
BA7626FS...E2(Embossed carrier tape)

# SOP16



# SSOP-A16



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