High performance video signal switcher

Five inputs Dual Circuits Video Signal Switchers

BA7626F,BA7626FS

No.11066EAT01

●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

●Applications

AV amplifiers, Video selectors, etc.

●Line up matrix

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

●Absolute Maximum Ratings (Ta=25℃)

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

※1 Derating is done at 3.0mW/℃ above Ta=25℃.(BA7626F)
※2 Derating is done at 6.0mW/℃ above Ta=25℃.(BA7626FS)

●Operating Range (Ta=25℃)

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

●**Electrical characQteristics** (Unless otherwise noted Ta=25℃, Vcc=5.0V)

Parameter	Symbol	Limits			Unit	Conditions
		Min.	Typ.	Max.		
Circuit current	ICC	—	15.0	20.0	mA	—
Maximum output level	Vom	2.3	2.5	—	Vp-p	f=1kHz, THD=0.5%
Voltage gain	G_V	5.7	6.2	6.7	dB	f=1MHz, V_{IN}=1Vp-p
Interchannel crosstalk	G_T	—	-65	-45	dB	f=4.43MHz, V_{IN}=1Vp-p
Mute level	CTM	—	-35	-25	dB	f=4.43MHz, V_{IN}=1Vp-p
Frequency characteristic	G_f	-3	0	+3	dB	10MHz/1MHz, V_{IN}=1Vp-p
Input inpedance	Z_{IN}	16	20	24	kΩ	—
CTL pin switching level	V_{TH}	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

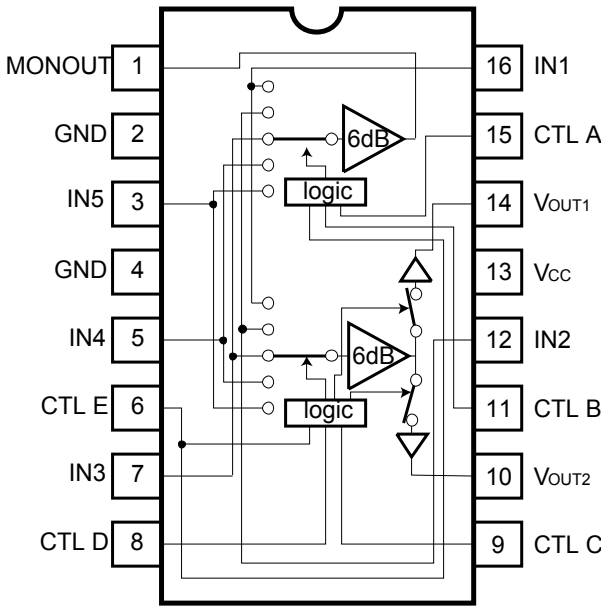


Fig.1 Block diagram

●Application circuit

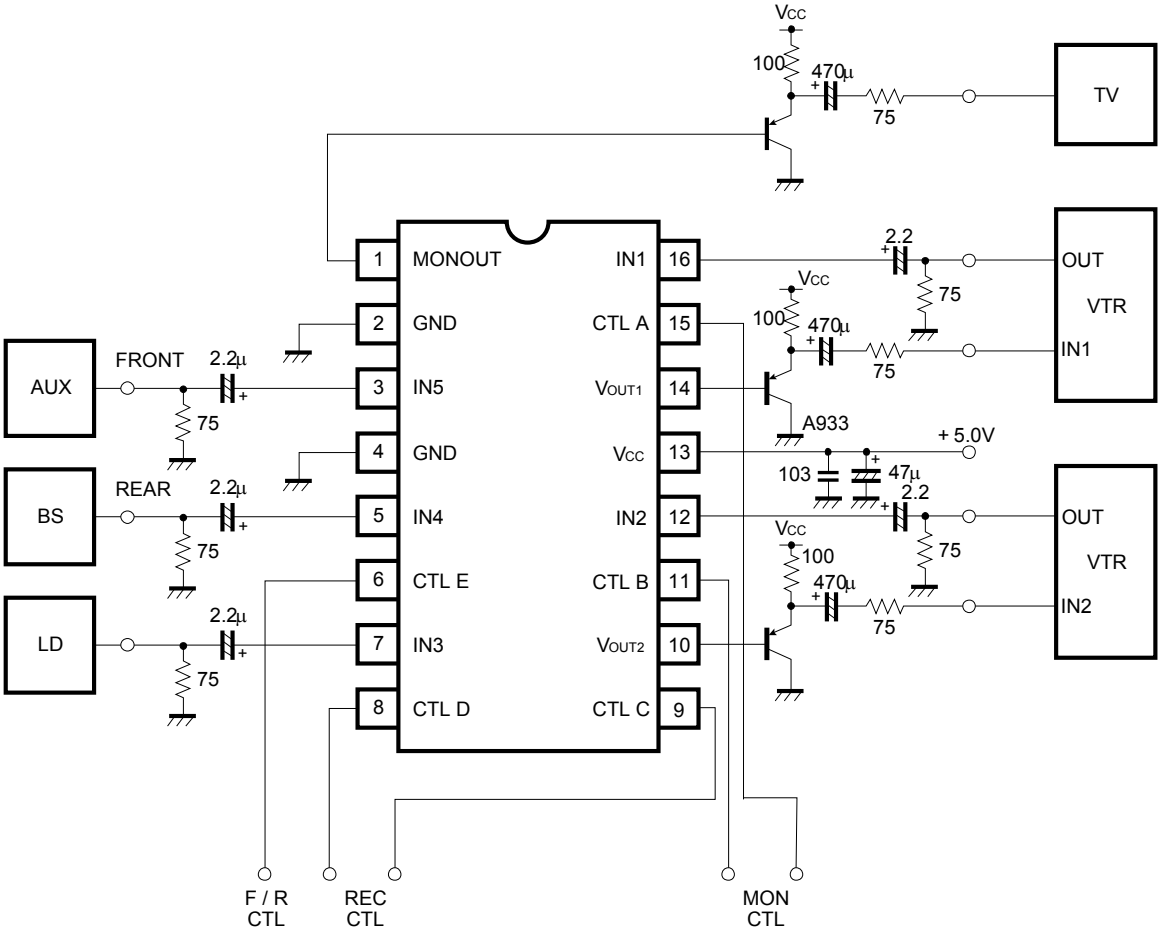
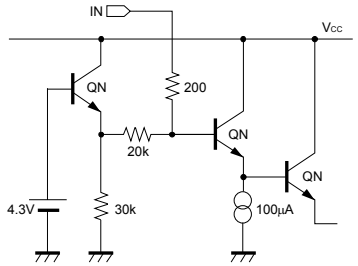
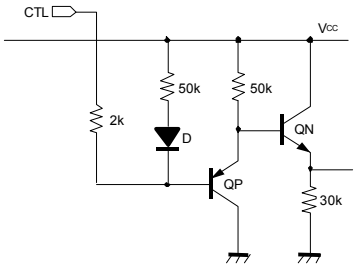
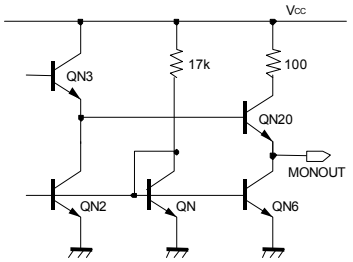
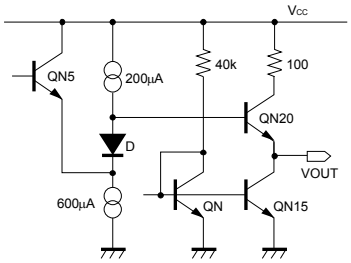


Fig.2 Application circuit

●**Pin descriptions** (Ta=25℃, 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 CTL A	
1	MONOUT	
10 14	VOUT2 VOUT1	

●Notes for 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.

●Ordering part number

B	A	7	6	2	6	F	S	-	E	2

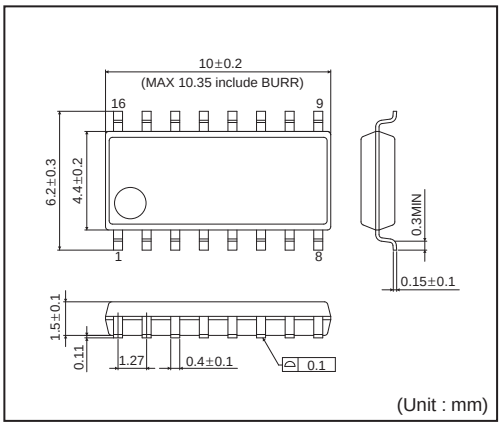
Part No.

Part No.
7626

Package
F: SOP16
FS: SSOP-A16

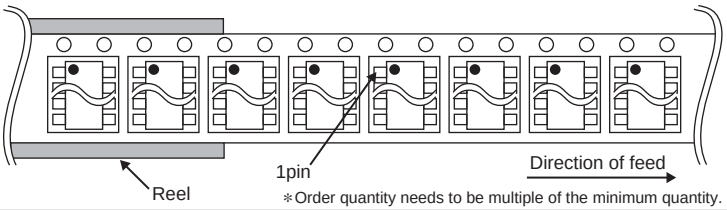
Packaging and forming specification
E2: Embossed tape and reel

SOP16



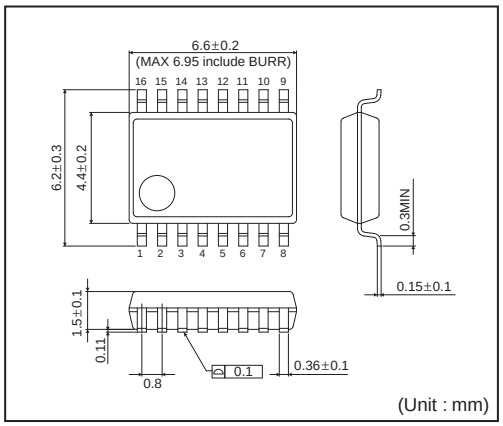
<Tape and Reel information>

Tape	Embossed carrier tape
Quantity	2500pcs
Direction of feed	E2 (The direction is the 1pin of product is at the upper left when you hold reel on the left hand and you pull out the tape on the right hand)



∗Order quantity needs to be multiple of the minimum quantity.

SSOP-A16



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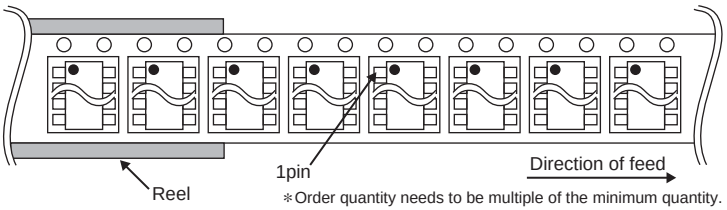

∗Order quantity needs to be multiple of the minimum quantity.

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