

Structure : Silicon Monolithic Integrated Circuit
 Product name : Single Circuit Wide Dynamic Range Video Signal Switchers

Type : **BA7649AF**

- Features :
- 1) Built-in mute function
 - 2) Wide operating power supply voltage range
 - 3) Good frequency characteristics (Typ. 10 MHz, 0 dB)
 - 4) Wide dynamic range (Typ. 3.5 Vp-p)
 - 5) Sync-tip clamp input
 - 6) Low interchannel crosstalk (Typ. -65 dB, f=4.43 MHz)

○Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{cc}	13.5	V
Power dissipation	P _d	450 *1	mW
Operating temperature	T _{opr}	-25~+75	°C
Storage temperature	T _{stg}	-55~+125	°C

*1 Deratings is done at 4.5mW/°C above Ta=25°C.

○Operating Range (Ta=25°C)

Parameter	Symbol	Min	Typ	Max	Unit
Power supply voltage	V _{cc}	4.5	5.0	13.0	V

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

Application example

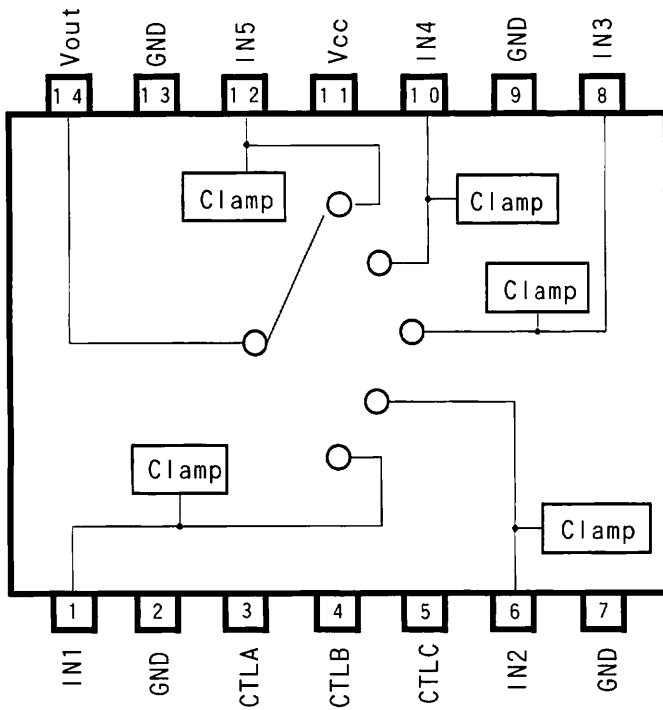
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○Electrical characteristics (Unless otherwise noted, Ta= 25°C, Vcc=5.0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current	I _{cc}	–	9.5	14.5	mA	
Maximum output level	V _{OM}	3.0	3.5	–	V _{p-p}	f=1kHz, THD=0.5%
Voltage gain	G _v	–0.5	0	+0.5	dB	f=1MHz, Vin=1.0V _{p-p}
Interchannel crosstalk	C _T	–	–65	–	dB	f=4.43MHz, Vin=1.0V _{p-p}
Frequency characteristic	G _F	–3.0	0.0	+1.0	dB	10MHz/1MHz, Vin=1.0V _{p-p}
CTL pin switching level A	V _{TH-A}	1.0	2.0	3.0	V	
CTL pin switching level B	V _{TH-B}	1.0	2.0	3.0	V	
CTL pin switching level C	V _{TH-C}	1.0	2.0	3.0	V	

○Block diagram

○Pin number and pin name



Pin No.	Pin name
1	IN1
2	GND
3	CTLA
4	CTLB
5	CTLC
6	IN2
7	GND
8	IN3
9	GND
10	IN4
11	Vcc
12	IN5
13	GND
14	Vout

Notes

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