

- Structure : Silicon Monolithic Integrated Circuit
- Product name : 1 circuit video isolation amp
- Type : **BH7673G**
- Package : SSOP5
- Features : 1) SSOP5 small package  
2) Bias input  
3) Low circuit current consumption  
4) High common mode rejection ratio  
5) Wide output dynamic range  
6) High input impedance  
7) Wide band [suitable for D4 standard]

○Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	VCC	7	V
Power dissipation	Pd	540	mW
Input voltage range	V <sub>IN</sub>	0~VCC+0.2	V
Operating temperature	T <sub>opr</sub>	-40~+85	°C
Storage temperature	T <sub>stg</sub>	-55~+125	°C

\*1 When mounting on a 70mmX70mmX1.6mm PCB board  
Reduced by 5.4mW/°C at 25°C or higher

○Operating Condition (Ta=25°C)

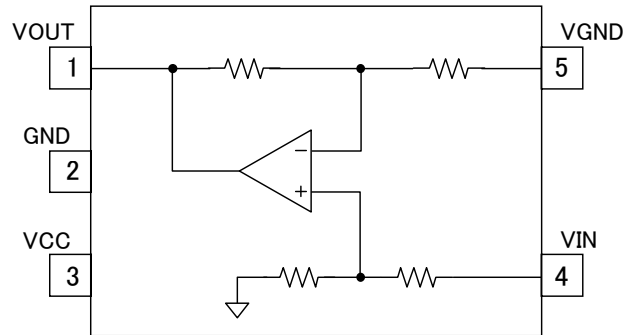
Parameter	Symbol	Min	Typ	Max	Unit
Supply voltage	VCC	4.5	5.0	5.5	V

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

○Electrical characteristics (Unless otherwise specified, Ta= 25°C, VCC=5.0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current	ICC	—	4.8	8.0	mA	No signal
Maximum output level	V <sub>OM</sub>	3.2	3.8	—	V <sub>pp</sub>	f=10kHz, THD=1.0%
Voltage gain	G <sub>V</sub>	-1.0	0.0	1.0	dB	V <sub>in</sub> =1.0V <sub>pp</sub> , f=1MHz
Frequency characteristics	G <sub>F</sub>	-1.0	0.0	1.0	dB	V <sub>in</sub> =1.0V <sub>pp</sub> , f=10MHz/1MHz
Common mode rejection ratio	CMRR	—	-60	-40	dB	V <sub>in</sub> =1.0V <sub>pp</sub> , f=20kHz
Input Impedance	Z <sub>IN</sub>	110	150	190	kΩ	

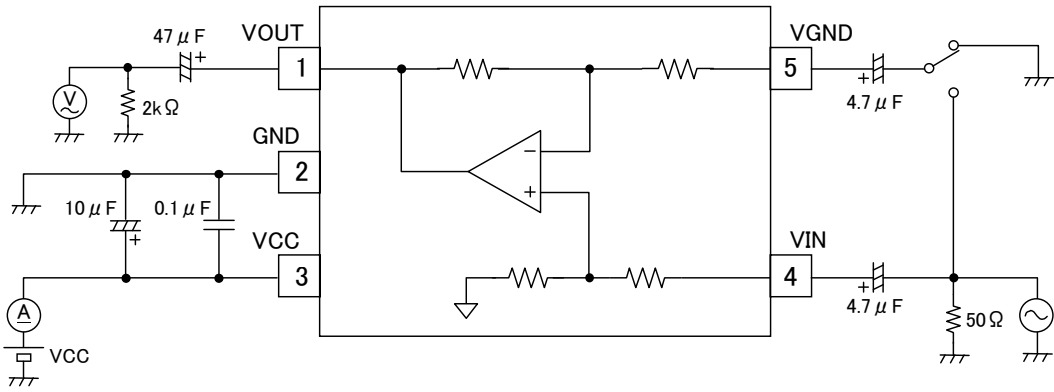
○Block diagram



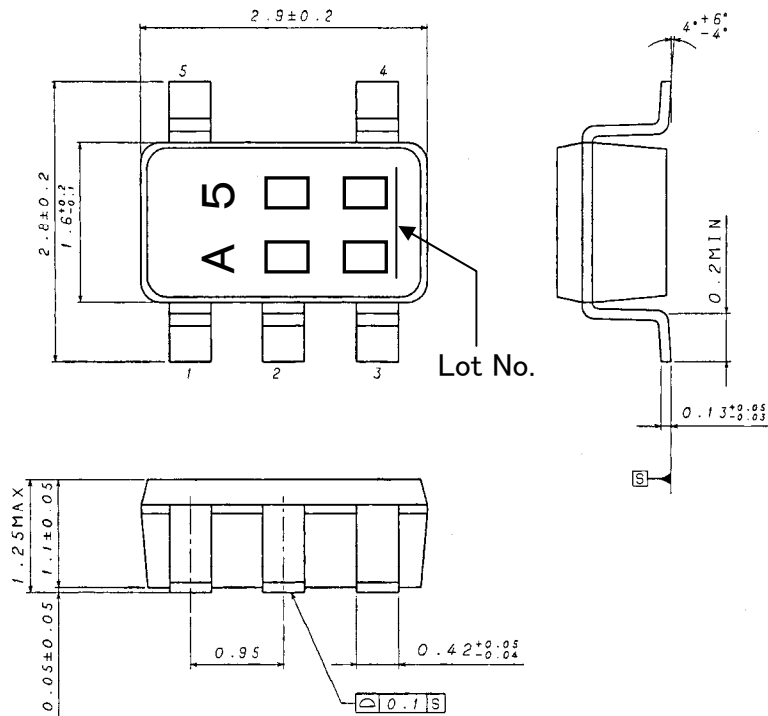
○Pin number and Pin name

Pin Number	Pin name
1	VOUT
2	GND
3	VCC
4	VIN
5	VGND

○ Test Circuit Diagrams



○ External dimensions and label codes



SSOP5 ( UNIT:mm )

● Cautions for use

(1) Absolute maximum ratings

If the absolute maximum ratings for applied voltage and/or operation temperature are exceeded, LSI damage may result. Therefore, do not apply voltage or use in a temperature that exceeds these absolute maximum ratings. If it is possible that absolute maximum ratings will be exceeded, use a physical safety device such as a fuse and make sure that no conditions that might exceed the absolute maximum ratings will be applied to the LSI IC.

(2) GND potential

Regardless of the operation mode, the voltage of the GND pin should be at least the minimum voltage. Actually check whether or not the voltage at each pin, including transient phenomena, is less than the GND pin voltage.

(3) Thermal design

The thermal design should be done using an ample margin that takes into consideration the allowable dissipation under actual use conditions.

(4) Shorts between pins and mounting errors

When mounting LSI ICs onto the circuit board, make sure each LSI's orientation and position is correct. The ICs may become damaged if they are not mounted correctly when the power is turned on. Similarly, damage may also result if a short occurs, such as when a foreign object is positioned between pins in an IC, or between a pin and a power supply or GND connection.

(5) Operation in strong electromagnetic field

When used within a strong electromagnetic field, evaluate carefully to avoid the risk of operation faults.

(6) Frequency response

About frequency response in  $f > 10\text{MHz}$ , refer to technical note.

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