

# Video signal switcher

## BA7021

The BA7021 is a switching IC developed for use in VCRs and televisions. It contains a three-channel analog multiplexer, a built-in mute, and video clamp.

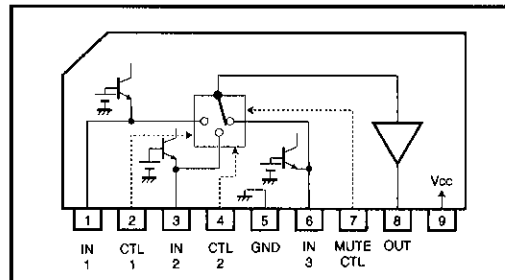
### ●Applications

Video cassette recorders, televisions and video disc players

### ●Features

- 1) 3-input / 1-output.
- 2) Built-in video clamp circuit.
- 3) Built-in mute circuit.
- 4) Operates of a 5V (Typ.) power supply and has low power consumption.

### ●Block diagram



### ●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power supply voltage	V <sub>cc</sub>	10	V
Power dissipation	P <sub>d</sub>	950 *	mW
Operating temperature	T <sub>opr</sub>	-25~60	°C
Storage temperature	T <sub>stg</sub>	-55~125	°C

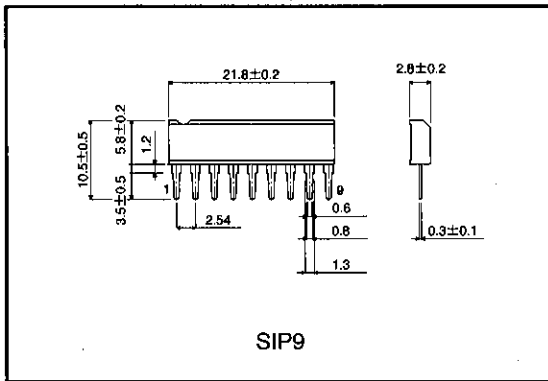
\* Reduced by 9.5mW for each increase in Ta of 1°C over 25°C.

### ●Electrical characteristics (Unless otherwise specified Ta=25°C and V<sub>cc</sub>=5.0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Operating voltage	V <sub>cc</sub>	4.5	5.0	6.0	V	—
Quiescent current	I <sub>q</sub>	—	5.0	8.0	mA	—
Maximum output level	V <sub>OM</sub>	1.9	2.7	—	V <sub>P-P</sub>	Switch operation 1
Voltage gain	G <sub>v</sub>	-0.5	0.0	+0.5	dB	f=1MHz, V <sub>IN</sub> =2V <sub>P-P</sub> , Switch operation 1
Interchannel crosstalk	C <sub>T</sub>	—	-55	-45	dB	f=4.43MHz, V <sub>IN</sub> =2V <sub>P-P</sub> , Switch operation 2
Mute function	C <sub>TM</sub>	—	-50	-40	dB	f=4.43MHz, V <sub>IN</sub> =2V <sub>P-P</sub> , Switch operation 3
Frequency characteristic	ΔG <sub>v</sub>	-0.5	0.0	+0.5	dB	f=4.43MHz / 1MHz, V <sub>IN</sub> =2V <sub>P-P</sub> , Switch operation 1
CTL pin switch level	V <sub>TH</sub>	0.1	0.7	2.0	V	2pin, 4pin, 7pin



●External dimensions (Units: mm)



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AV switches

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