

# Video signal switcher for VTR, TV

## BA7615N

BA7615N has built-in 6dB amplifier, 75Ω driver and mute function. This IC is consisted of 4 inputs (IN1, IN2, IN3, IN4), 1 output (out) and 3 control terminals (CTL-A, CTL-B, CTL-C). Each circuit input terminal is sync tip clamp type.

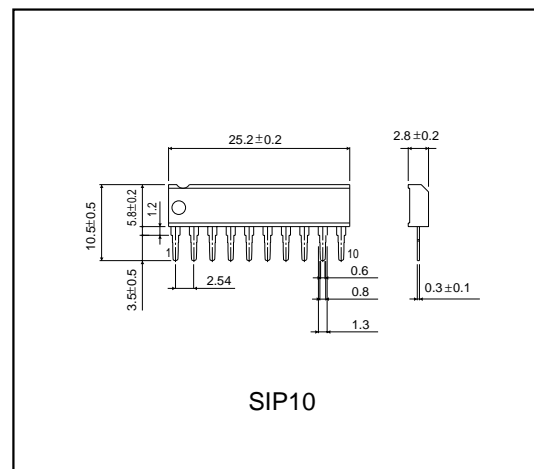
### ●Applications

TV, VTR

### ●Features

- 1) 4-input 1-output switch.
- 2) Built-in 6dB amplifier and 75Ω driver.
- 3) Built-in mute function.
- 4) Sync tip clamp input.
- 5) Wide operating supply voltage range. (4.5V to 13.0V)
- 6) Low power consumption. (Typ.100mW)
- 7) Excellent frequency characteristic. (Typ.10MHz, 0dB)
- 8) Wide dynamic range. (Typ.3.5V<sub>P-P</sub>)
- 9) Few cross talk between channels.  
(Typ.-65dB, f=4.43MHz)

### ●External dimensions (Units : mm)



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

Parameter	Symbol	Limits	Unit
Supply voltage	V <sub>CC</sub>	13.5	V
Power dissipation	P <sub>d</sub>	850 *	mW
Operating temperature range	T <sub>opr</sub>	-25 to +75	°C
Storage temperature range	T <sub>stg</sub>	-55 to +125	°C

\* Derating : 8.5mW per 1°C when using this IC in Ta=25°C above.

### ●Operating voltage condition (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating voltage range	V <sub>CC</sub>	4.5	5.0	13.0	V

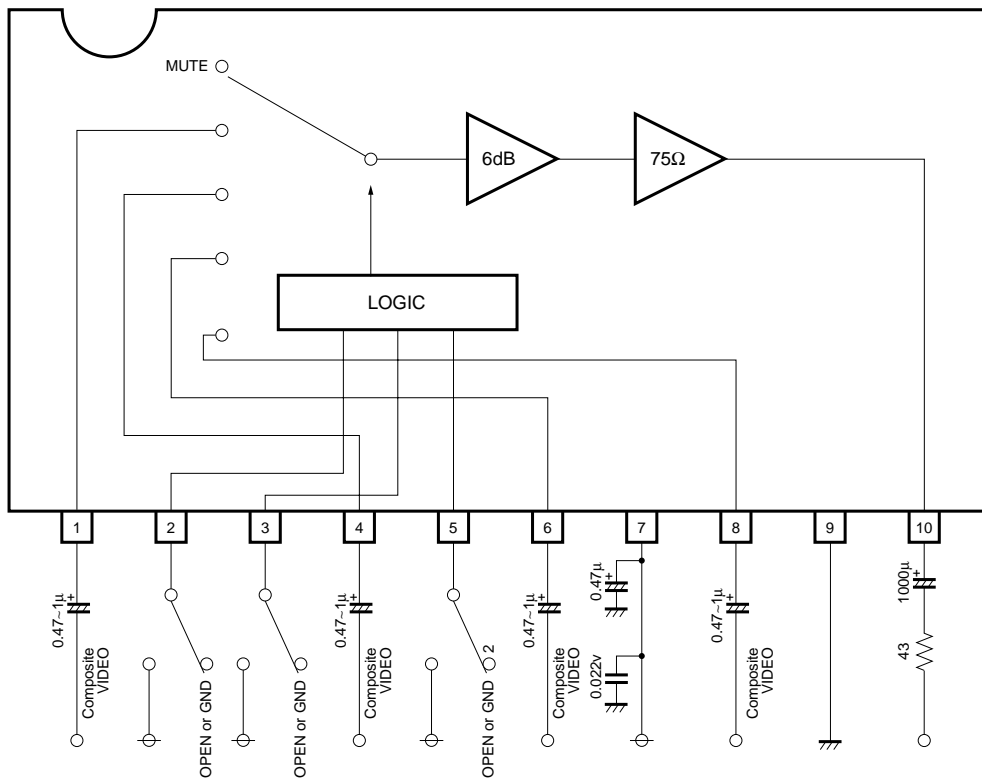
\*This product is not designed for protection against radioactive rays.

Multimedia ICs

●Electrical characteristics (Unless otherwise noted, Ta=25°C, Vcc=5V)

Characteristics	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current	I <sub>CC</sub>	–	19.5	29.0	mA	No signal
Max output level	V <sub>OM</sub>	3.0	3.5	–	V <sub>P-P</sub>	f=1KHz, THD=0.5%
Voltage gain	G <sub>V</sub>	5.5	6.0	6.5	dB	f=1KHz, 1V <sub>P-P</sub>
Frequency caharacteristics	G <sub>F</sub>	–3.0	0.0	1.0	dB	f=10MHz / 1MHz, 1V <sub>P-P</sub>
Channel to channel crosstalk	C <sub>T</sub>	–	–65	–	dB	f=4.43MHz, 1V <sub>P-P</sub>
CTL terminal threshold level A	V <sub>THA</sub>	1.0	2.0	3.0	V	CTLA threshold voltage
CTL terminal threshold level B	V <sub>THB</sub>	1.0	2.0	3.0	V	CTLB threshold voltage
CTL terminal threshold level C	V <sub>THC</sub>	1.0	2.0	3.0	V	CTLC threshold voltage

●Application circuit



\*The output impedance has 32Ω, please use 43Ω resistor for outside matching.

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