

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.

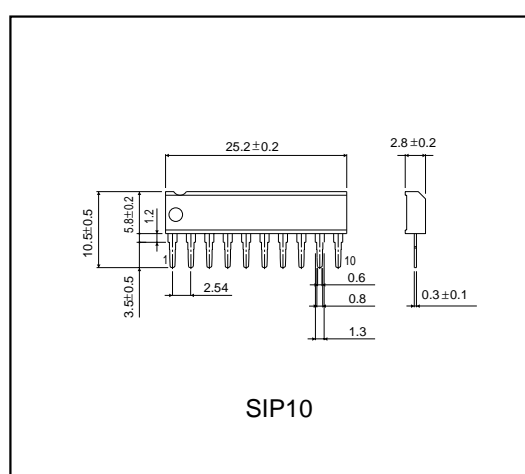
●Applications

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_{P-P})
- 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 _{CC}	13.5	V
Power dissipation	P _d	850 *	mW
Operating temperature range	T _{opr}	-25 to +75	°C
Storage temperature range	T _{stg}	-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 _{CC}	4.5	5.0	13.0	V

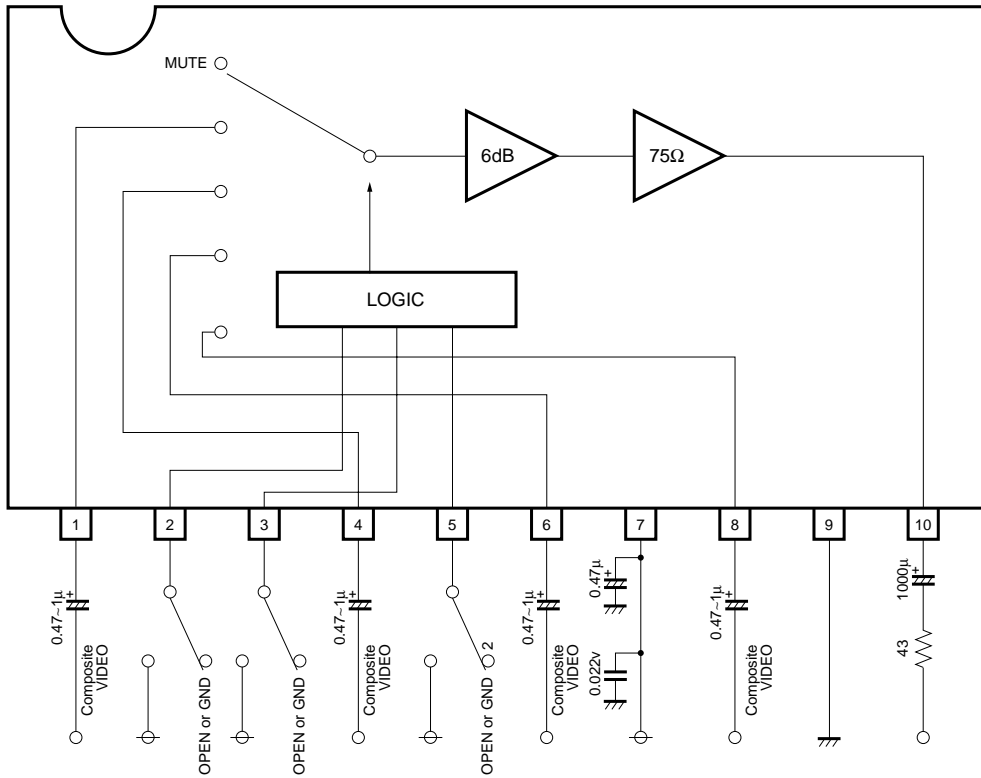
*This product is not designed for protection against radioactive rays.

Multimedia ICs

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

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