

SANYO	No.3352B	Monolithic Linear IC
		LA7954

Video Switch for TV / VCR Use

Features

- 4 inputs, 1 output
- Excellent crosstalk characteristic
- Wide band

Maximum Ratings at Ta = 25°C

			unit
Maximum Supply Voltage	V7 max	14	V
Maximum Input Apply Voltage (1)	V4 max, V6 max V8 max, V9 max,	8	V
Maximum Input Apply Voltage (2)	V2 max, V3 max	V _{CC} = 14V	14 V
Maximum Output Current	I1 max	7	mA
Allowable Power Dissipation	Pd max	Ta ≤ 65°C	540 mW
Operating Temperature	Topr	-20 to +65	°C
Storage Temperature	Tstg	-55 to +150	°C

Operating Conditions at Ta = 25°C

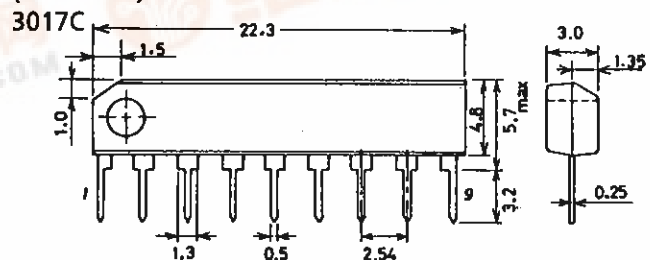
			unit
Operating Voltage Range	V _{CC} op	8 to 13.5	V
Recommended Supply Voltage	V _{CC}	12	V

Operating Characteristics at Ta = 25°C, V_{CC} = 12V

		min	typ	max	unit
Quiescent Current	I _{CC}	9	12	17	mA
Input Bias Voltage	V4, V6, V8, V9	4.5	4.8	5.1	V
Output Bias Voltage	V1	3.7	4.1	4.3	V
Output DC Offset Voltage	V _{OS}	-50	0	+50	mV
Control Threshold Voltage	V2H, V3H, V2L, V3L	2.3			V
				0.7	V

Continued on next page.

Package Dimensions
(unit : mm)



SANYO : SIP9

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			min	typ	max	unit
Control Input Current	I ₂ , I ₃		-20	-6		μA
Voltage Gain	GV	f=1MHz, V _{IN} =2Vpp (Note 1)	-0.5	-0.2		dB
Frequency Characteristic	GV-f	[0dB at f=100kHz (Note 1) f=10MHz, V _{IN} =2Vpp	-3	0		dB
Output Dynamic Range	V _{DR}	f=15kHz, V _{IN} =6p-p (Note 1)		0.3	6	%
Crosstalk (Note 2)	CT	V _{IN} =2Vp-p, f=3MHz (Note 1) V _{IN} =2Vp-p, f=5MHz (Note 1)	48 45	58 55		dB

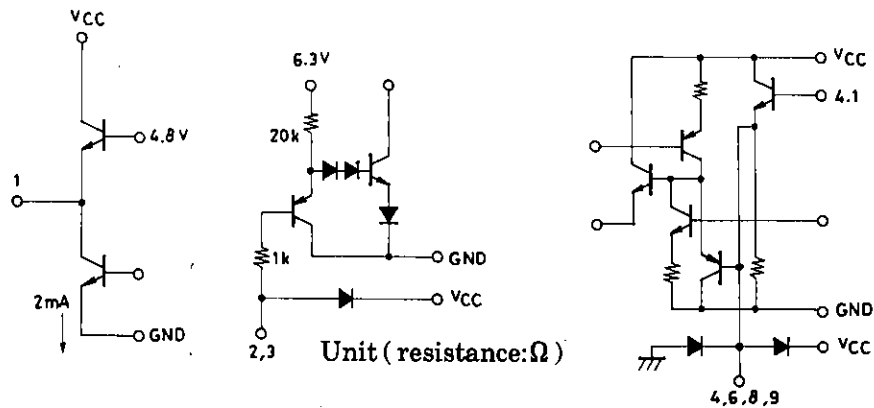
※ Current flowing into the IC is defined as positive; current flowing out is defined as negative.

Video Switch Truth Table

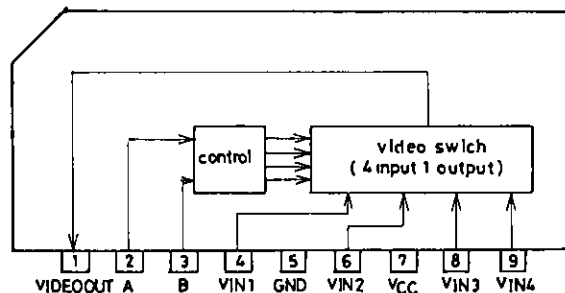
S2 (Pin 2)	S3 (Pin 3)	V _{IN1} (Pin 4)	V _{IN2} (Pin 6)	V _{IN3} (Pin 8)	V _{IN4} (Pin 9)
H	H	ON	OFF	OFF	OFF
L	H	OFF	ON	OFF	OFF
H	L	OFF	OFF	ON	OFF
L	L	OFF	OFF	OFF	ON

Note 1 : Refer to this Truth Table and make measurements by switching S2, S3.

Input/Output Equivalent Circuit

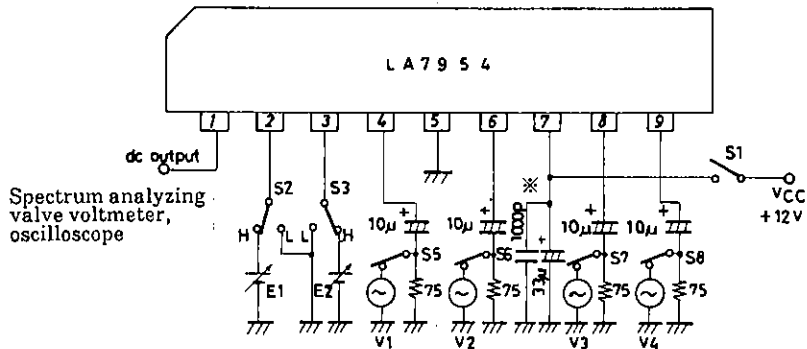


Equivalent Circuit Block Diagram



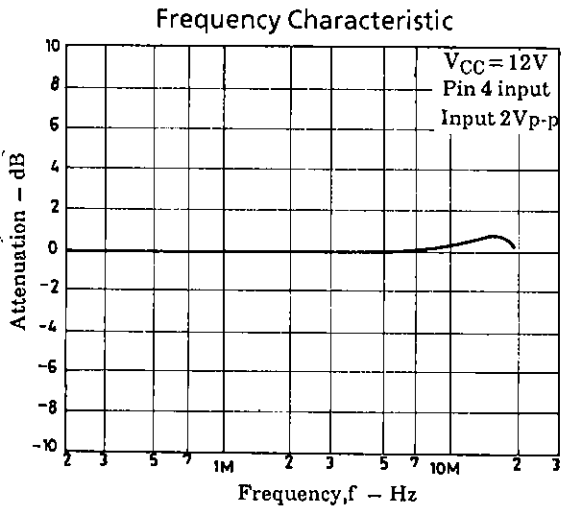
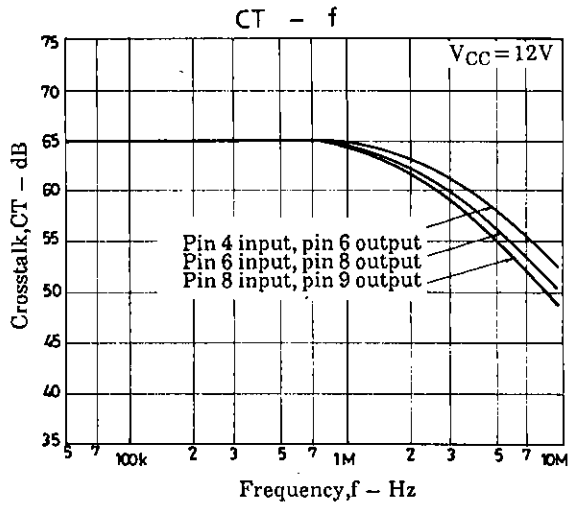
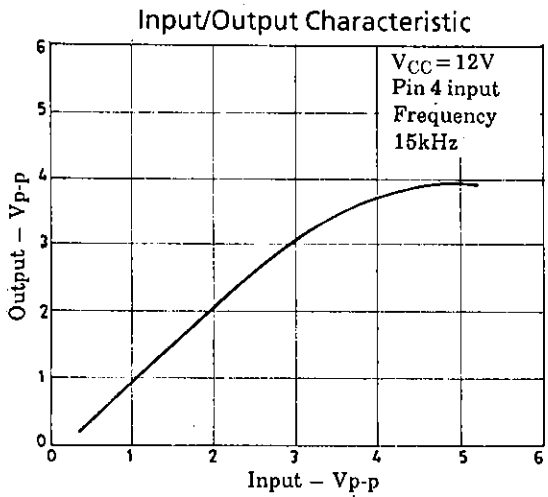
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Test Circuit



※ : Connect the bypass capacitor for V_{CC} as close to pin 7 as possible.

Unit (resistance:Ω, capacitance:F)



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