

## 2-INPUT 1-OUTPUT VIDEO SWITCH

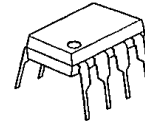
### GENERAL DESCRIPTION

The NJM2533 is a video switch for VCR, TV, and others. It contains two bias-type inputs and one buffer-type output.

### PACKAGE OUTLINE

### FEATURES

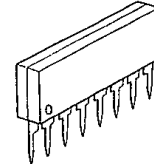
- Operating Voltage (+4.75V ~ +13V)
- Low Operating Current (MAX : 3.7mA)
- Crosstalk (-70dB)
- 2-Input, 1-Output
- Bipolar Technology
- Package Outline DIP8, DMP8, SIP8, SSOP8



NJM2533D



NJM2533M

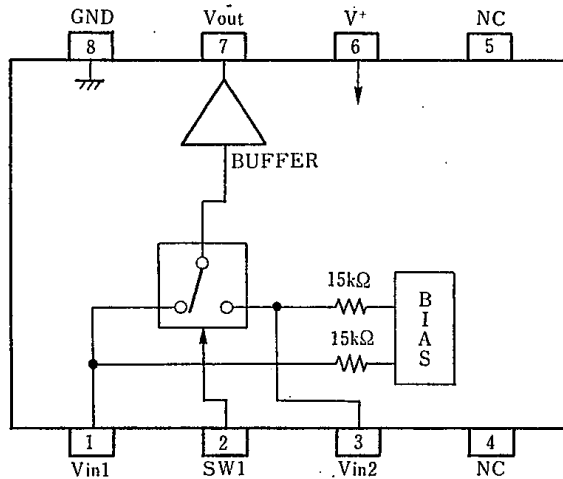


NJM2533L



NJM2533V

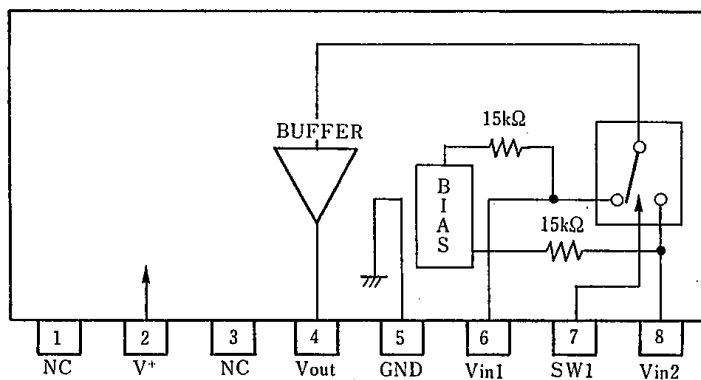
### PIN CONFIGURATION



#### PIN FUNCTION

- 1 : Vin1
- 2 : SW1
- 3 : Vin2
- 4 : NC
- 5 : NC
- 6 : V+
- 7 : V<sub>OUT</sub>
- 8 : GND

NJM2533D  
NJM2533M  
NJM2533V



#### PIN FUNCTION

- 1 : NC
- 2 : V+
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- 6 : Vin1
- 7 : SW1
- 8 : Vin2

NJM2533L

## ■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup>	+15	V
Power Dissipation	P <sub>D</sub>	(DIP-8) 500 (DMP-8) 300 (SIP-8) 800 (SSOP-8) 250	mW
Operating Temperature Range	T <sub>opr</sub>	-20 ~ +75	°C
Storage Temperature Range	T <sub>stg</sub>	-40 ~ +125	°C

## ■ ELECTRICAL CHARACTERISTICS

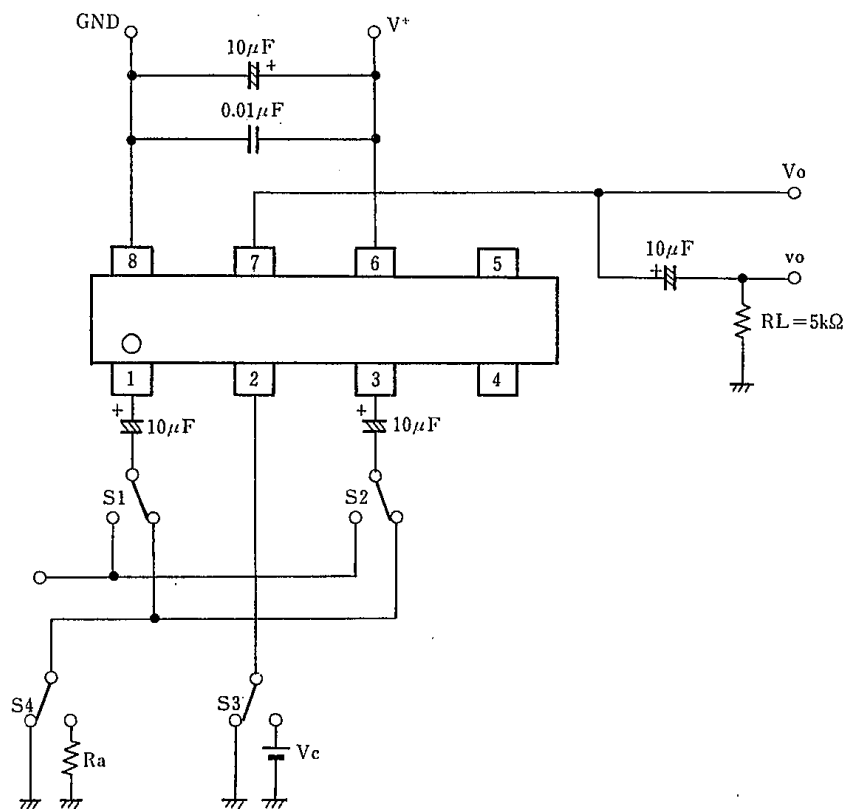
(V<sup>+</sup>=5V, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V <sup>+</sup>		+4.5	—	+13.0	V
Operating Current	I <sub>cc</sub>		—	2.7	3.7	mA
Frequency Characteristics	G <sub>f</sub>	V <sub>IN</sub> =2V <sub>pp</sub> , V <sub>O</sub> =10MHz/100kHz	-1.0	0	+1.0	dB
Voltage Gain	G <sub>v</sub>	V <sub>IN</sub> =2V <sub>pp</sub> , 100kHz	-0.5	0	+0.5	dB
Total Harmonic Distortion	THD	V <sub>IN</sub> =2.5V <sub>pp</sub> , 1kHz	—	0.05	0.1	%
Differential Gain	DG	V <sub>IN</sub> =2V <sub>pp</sub> , Standard staircase signal, APL=50%	—	0	3.0	%
Differential Phase	DP	V <sub>IN</sub> =2V <sub>pp</sub> , Standard staircase signal, APL=50%	—	0	3.0	deg
Output Offset Voltage	V <sub>off</sub>		-15	0	+15	mV
Crosstalk	CT	V <sub>IN</sub> =2V <sub>pp</sub> , 4.3MHz	—	-70	-60	dB
Switching Voltage	V <sub>CH</sub>		2.4	—	—	V
	V <sub>CL</sub>		—	—	0.8	V
Input Impedance	R <sub>I</sub>		—	30	—	kΩ
Output Impedance	R <sub>O</sub>		—	25	—	Ω
Input Bias Voltage	V <sub>IN</sub>		—	2.5	—	V

## ■ CONTROL SIGNAL-OUTPUT SIGNAL

SW1	OUTPUT SIGNAL
L	V <sub>IN1</sub>
H	V <sub>IN2</sub>

■ TEST CIRCUIT

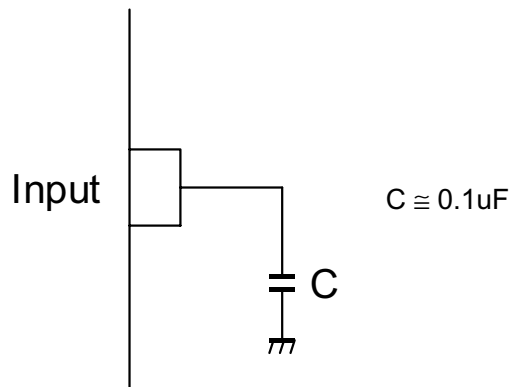


# NJM2533

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## ■APPLICATION

This IC requires 0.1uF capacitor between INPUT and GND for bias type input at mute mode.



**[CAUTION]**

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