2-INPUT 1-OUTPUT VIDEO SWITCH

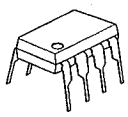
■ GENERAL DESCRIPTION

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

■ FEATURES

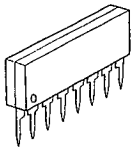
- Operating Voltage (+4.75V～+13V)
- Low Operating Current (MAX : 3.7mA)
- Crosstalk (−70dB)
- 2-Input, 1-Output
- Bipolar Technology
- Package Outline DIP8, DMP8, SIP8, SSOP8

■ PACKAGE OUTLINE



NJM2533D

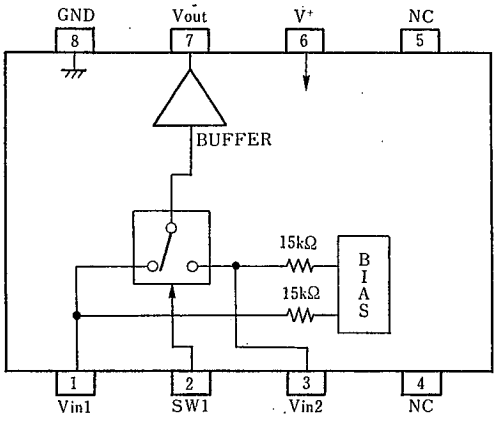
NJM2533M



NJM2533L

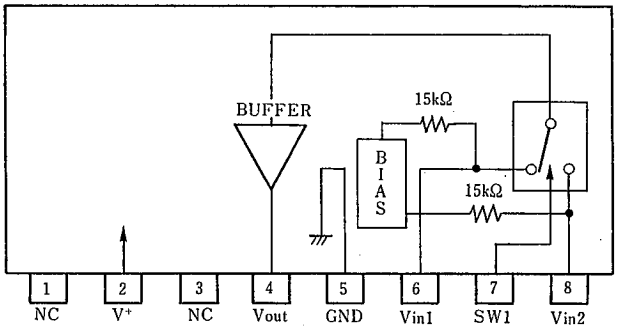
NJM2533V

■ PIN CONFIGURATION



PIN FUNCTION
1 : Vin1
2 : SW1
3 : Vin2
4 : NC
5 : NC
6 : V^+
7 : V_{OUT}
8 : GND

NJM2533D
NJM2533M
NJM2533V



PIN FUNCTION
1 : NC
2 : V^+
3 : NC
4 : V_{OUT}
5 : GND
6 : Vin1
7 : SW1
8 : Vin2

NJM2533L

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+	+15	V
Power Dissipation	P_D	(DIP-8) 500 (DMP-8) 300 (SIP-8) 800 (SSOP-8) 250	mW
Operating Temperature Range	T_{opr}	−20～+75	℃
Storage Temperature Range	T_{stg}	−40～+125	℃

■ ELECTRICAL CHARACTERISTICS

(V^+=5V, Ta=25℃)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V^+		+4.5	−	+13.0	V
Operating Current	I_{CC}		−	2.7	3.7	mA
Frequency Characteristics	Gf	V_{IN}=2Vpp, Vo=10MHz/100kHz	−1.0	0	+1.0	dB
Voltage Gain	G_V	V_{IN}=2Vpp, 100kHz	−0.5	0	+0.5	dB
Total Harmonic Distortion	THD	V_{IN}=2.5Vpp, 1kHz	−	0.05	0.1	%
Differential Gain	DG	V_{IN}=2Vpp, Standard staircase signal, APL=50%	−	0	3.0	%
Differential Phase	DP	V_{IN}=2Vpp, Standard staircase signal, APL=50%	−	0	3.0	deg
Output Offset Voltage	V_{off}		−15	0	+15	mV
Crosstalk	CT	V_{IN}=2Vpp, 4.3MHz	−	−70	−60	dB
Switching Voltage	V_{CH}		2.4	−	−	V
	V_{CL}		−	−	0.8	V
Input Impedance	R_I		−	30	−	kΩ
Output Impedance	R_o		−	25	−	Ω
Input Bias Voltage	V_{IN}		−	2.5	−	V

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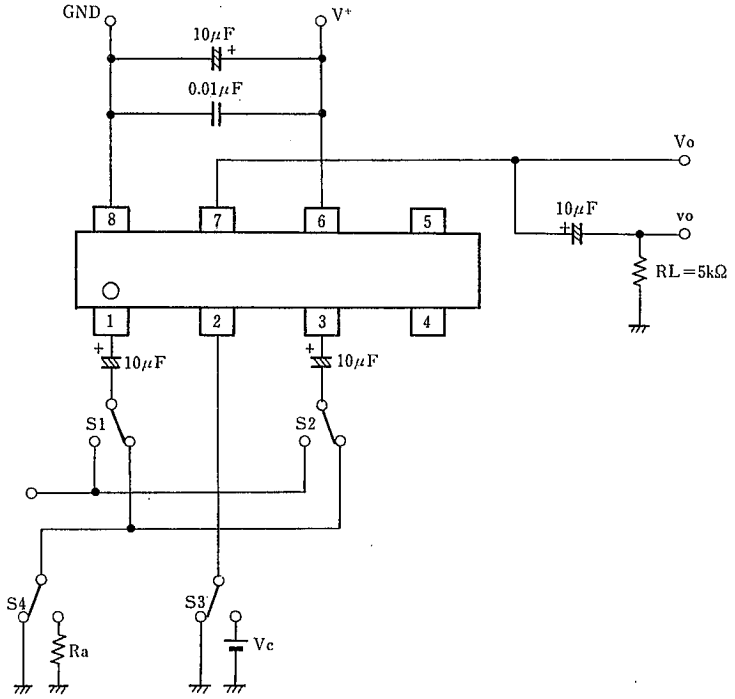
■ CONTROL SIGNAL-OUTPUT SIGNAL

SW1	OUTPUT SIGNAL
L	$V_{IN}1$
H	$V_{IN}2$

■ TEST CIRCUIT



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