## JRC

# 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
- Low Operating Current
- Crosstalk .
- 2-Input, 1-Output .
- Bipolar Technology .
- Package Outline .

 $(+4.75V \sim +13V)$ (MAX: 3.7mA) (-70dB)

DIP8, DMP8, SIP8, SSOP8



NJM2533D

PACKAGE OUTLINE



NJM2533M

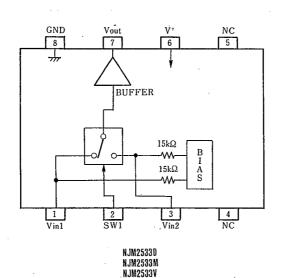
NJM2533L



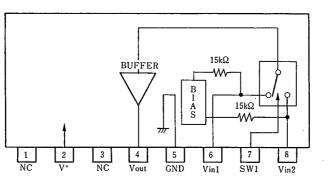
NJM2533V

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#### PIN CONFIGURATION



PIN FUNCTION PIN FUN 1 : Vin1 2 : SW1 3 : Vin2 4 : NC 5 : NC 6 : V<sup>+</sup> 7 : V<sub>out</sub> 8 : GND



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#### ABSOLUTE MAXIMUM RATINGS (Ta=25℃) SYMBOL PARAMETER RATINGS UNIT Supply Voltage V+ +15 v (DIP-8) 500 (DMP-8) 300 mW Power Dissipation $\mathbf{P}_{\mathbf{D}}$ (SIP-8) 800 (SSOP-8) 250 Operating Temperature Range T<sub>opr</sub> Ĉ -20~+75 °C -40~+125 Storage Temperature Range T<sub>stg</sub>

### ELECTRICAL CHARACTERISTICS

(V<sup>+</sup>=5V, Ta=25℃)

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

### CONTROL SIGNAL-OUTPUT SIGNAL

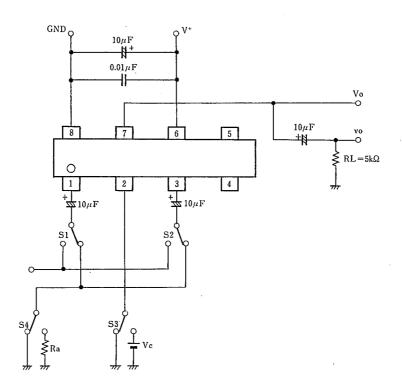
SW1	OUTPUT SIGNAL		
L	V <sub>IN</sub> 1		
Н	V <sub>IN</sub> 2		

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NJM2533

■ TEST CIRCUIT



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**MEMO** 

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