

## 3-INPUT 1-OUTPUT VIDEO SWITCH

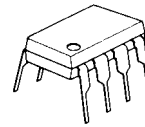
### ■ GENERAL DESCRIPTION

The **NJM2535** is a video switch for VCR, TV and others.  
It contains three clamp-type inputs and one buffer-type output.

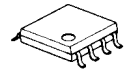
### ■ FEATURES

- Operating Voltage (+4.5V to +13V)
- Low Operating Current (4.6mA MAX)
- Crosstalk (-70dB)
- 3-Input, 1-Output
- Bipolar Technology
- Package Outline DIP8, DMP8, SIP8, SSOP8

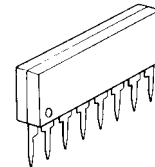
### ■ PACKAGE OUTLINE



**NJM2535D**



**NJM2535M**

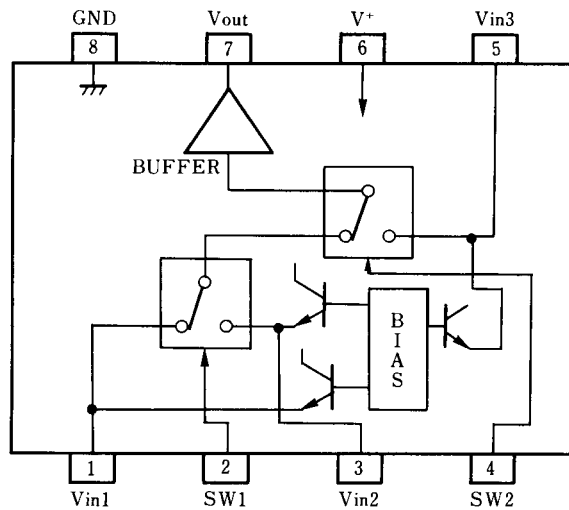


**NJM2535L**



**NJM2535V**

### ■ PIN CONFIGURATION



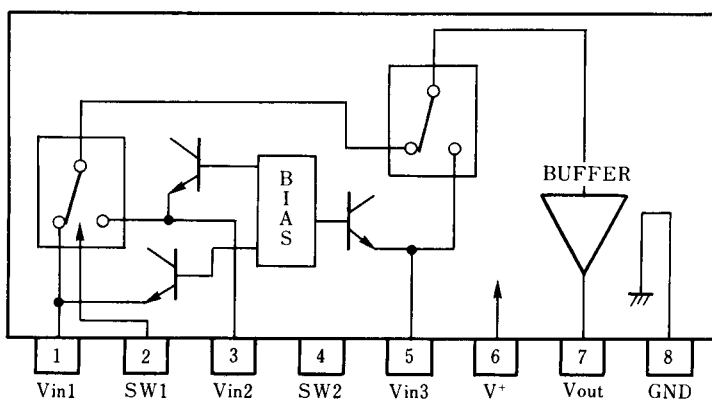
**NJM2535D**

**NJM2535M**

**NJM2535V**

#### PIN FUNCTION

- 1 : Vin1
- 2 : SW1
- 3 : Vin2
- 4 : SW2
- 5 : Vin3
- 6 : V<sup>+</sup>
- 7 : V<sub>OUT</sub>
- 8 : GND



**NJM2535L**

#### PIN FUNCTION

- 1 : Vin1
- 2 : SW1
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## ■ ABSOLUTE MAXIMUM RATINGS

( $T_a = 25^\circ\text{C}$ )

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	$T_{opr}$	-40 to +85	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-40 to +125	$^\circ\text{C}$

## ■ ELECTRICAL CHARACTERISTICS

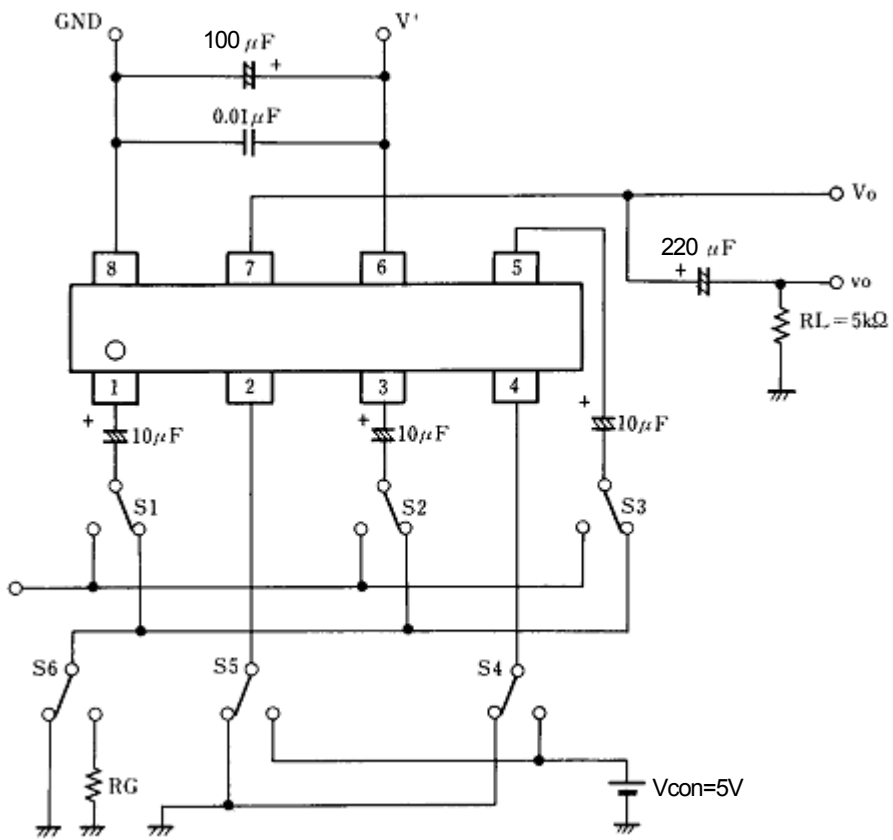
( $V^+ = 5\text{V}$ ,  $T_a = 25^\circ\text{C}$ )

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Supply Voltage	$V^+$		+4.5	-	+13.0	V
Supply Current	$I_{CC}$		-	3.6	4.6	mA
Frequency Characteristics	$G_f$	$V_{IN} = 2V_{PP}$ , $V_O = 10\text{MHz}/100\text{kHz}$	-1.0	0	+1.0	dB
Voltage Gain	$G_v$	$V_{IN} = 2V_{PP}$ , 100kHz	-0.5	0	+0.5	dB
Differential Gain	DG	$V_{IN} = 2V_{PP}$ , Standard staircase signal, APL = 50%	-	0.2	3.0	%
Differential Phase	DP	$V_{IN} = 2V_{PP}$ , Standard staircase signal, APL = 50%	-	0.2	3.0	deg
Output Offset Voltage	$V_{off}$		-30	0	+30	mV
Crosstalk	CT	$V_{IN} = 2V_{PP}$ , 4.3MHz	-	-70	-60	dB
Switching Voltage	$V_{CH}$		2.4	-	-	V
	$V_{CL}$		-	-	0.8	V
Output Impedance	$R_O$		-	25	-	$\Omega$
Input Clamp Voltage	$V_{IN}$		-	1.5	-	V

## ■ INPUT CONTROL SIGNAL-OUTPUT SIGNAL

SW1	SW2	OUTPUT SIGNAL
L	L	$V_{IN1}$
H	L	$V_{IN2}$
L/H	H	$V_{IN3}$

## ■ TEST CIRCUIT



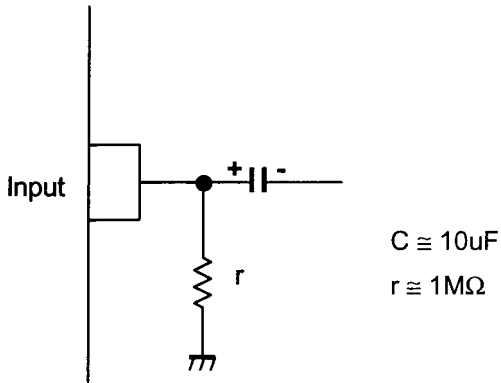
Terminal DC voltage at test circuit (Ta=25°C)

Terminal name	Vin1	Vin2	Vin3	Vout
DC voltage (V)	$(3 \cdot V^+) / 10$	$(3 \cdot V^+) / 10$	$(3 \cdot V^+) / 10$	$(3 \cdot V^+) / 10 - 0.7$

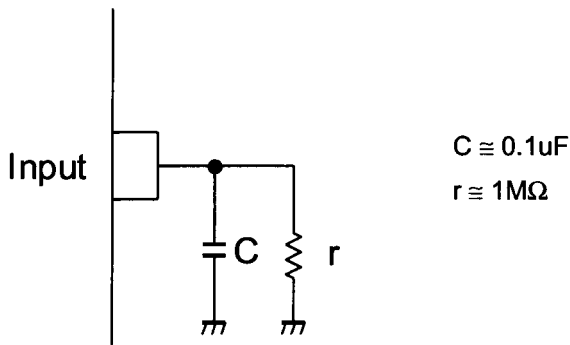
# NJM2535

## ■ APPLICATION

This IC requires  $1\text{M}\Omega$  resistance between INPUT and GND pin for clamp type input since the minute current causes an unstable pin voltage.



This IC requires  $0.1\mu\text{F}$  capacitor between INPUT and GND,  $1\text{M}\Omega$  resistance between INPUT and GND for clamp type input at mute mode.



[CAUTION]  
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