

3-INPUT 1-OUTPUT VIDEO SWITCH

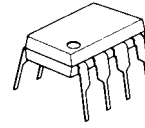
■ GENERAL DESCRIPTION

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

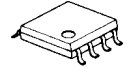
■ FEATURES

- 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

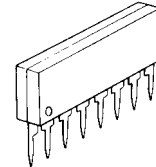
■ PACKAGE OUTLINE



NJM2535D



NJM2535M

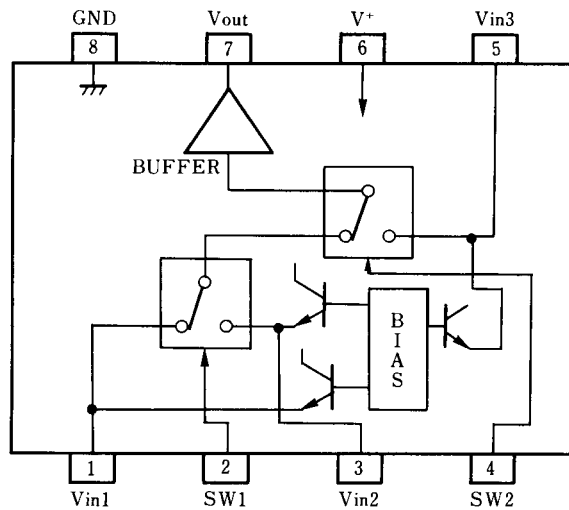


NJM2535L



NJM2535V

■ PIN CONFIGURATION



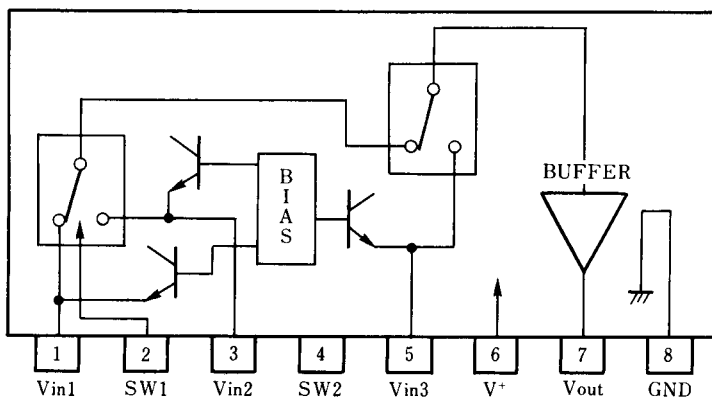
NJM2535D

NJM2535M

NJM2535V

PIN FUNCTION

- 1 : Vin1
- 2 : SW1
- 3 : Vin2
- 4 : SW2
- 5 : Vin3
- 6 : V+
- 7 : V_{OUT}
- 8 : GND



NJM2535L

PIN FUNCTION

- 1 : Vin1
- 2 : SW1
- 3 : Vin2
- 4 : SW2
- 5 : Vin3
- 6 : V+
- 7 : V_{OUT}
- 8 : GND

NJM2535

■ 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}	-20 to +75	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40 to +125	$^\circ\text{C}$

■ ELECTRICAL CHARACTERISTICS

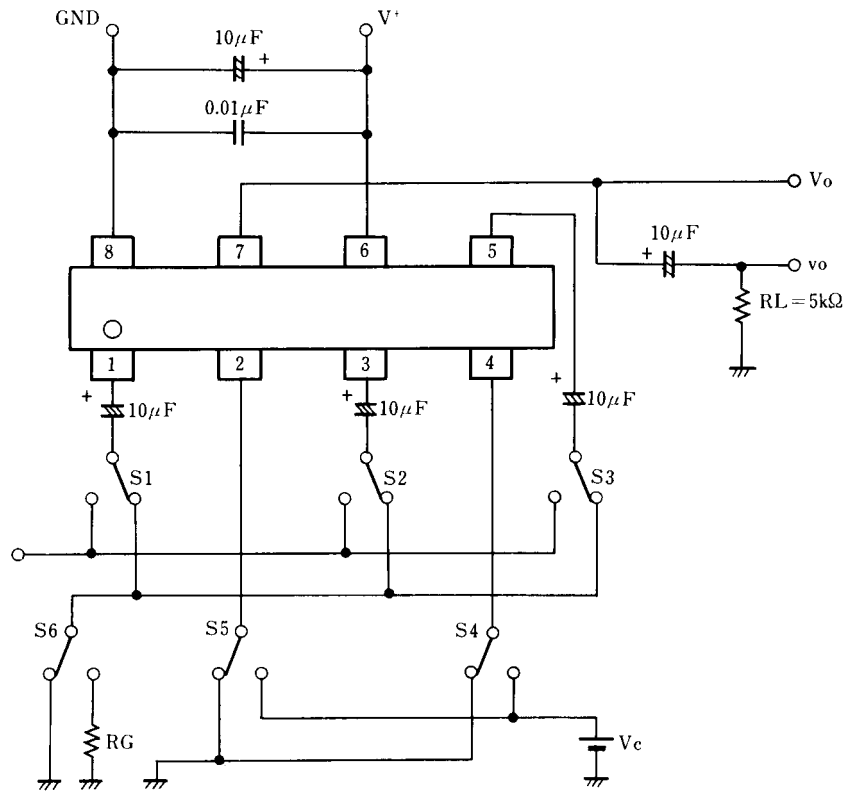
($V^+ = 5\text{V}$, $T_a = 25^\circ\text{C}$)

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	3.0	%
Differential Phase	DP	$V_{IN} = 2V_{PP}$, Standard staircase signal, APL = 50%	-	0	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
Input Impedance	R_i		-	30	-	k Ω
Output Impedance	R_o		-	25	-	Ω
Input Bias Voltage	V_{IN}		-	2.5	-	V

■ INPUT CONTROL SIGNAL-OUTPUT SIGNAL

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

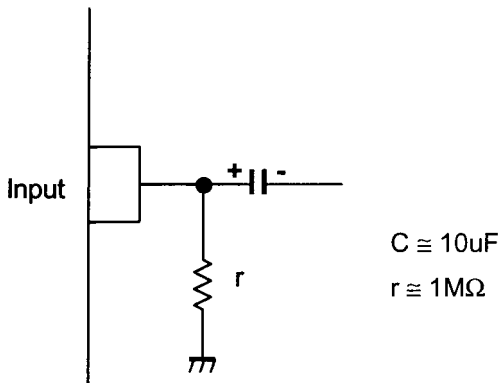
■ TEST CIRCUIT



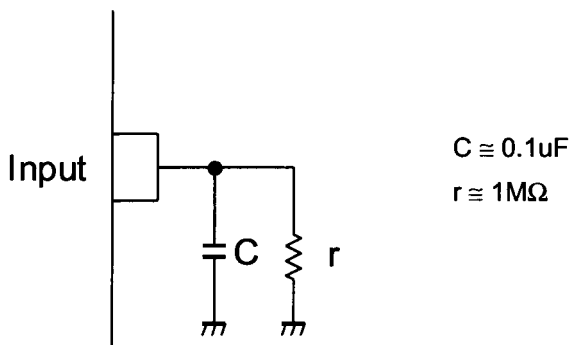
NJM2535

■ 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.



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