

3-INPUT 1-OUTPUT VIDEO SWITCH

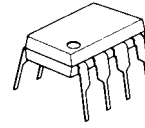
■ GENERAL DESCRIPTION

The **NJM2534** is a video switch for VCR, TV and others.
It contains three bias-type inputs and one buffer-type output.

■ FEATURES

- Operating Voltage (+4.5V to +13V)
- Low Operating Current (4.7mA MAX)
- Crosstalk (-70dB)
- 2-Input, 1-Output
- Bipolar Technology
- Package Outline DIP8, DMP8, SIP8, SSOP8

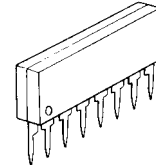
■ PACKAGE OUTLINE



NJM2534D



NJM2534M

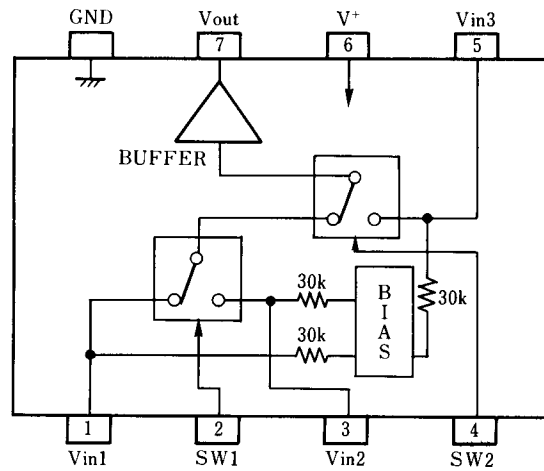


NJM2534L



NJM2534V

■ PIN CONFIGURATION



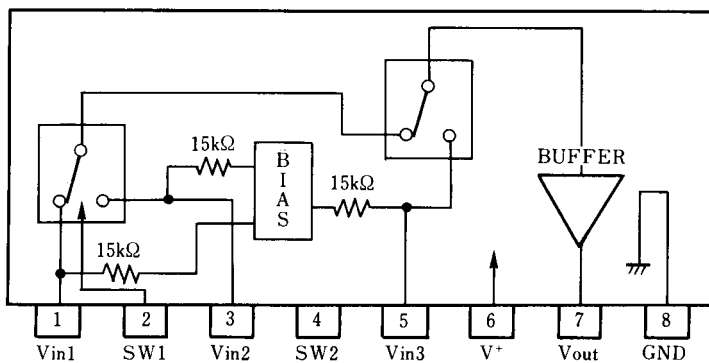
NJM2534D

NJM2534M

NJM2534V

PIN FUNCTION

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



NJM2534L

PIN FUNCTION

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

NJM2534

■ 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

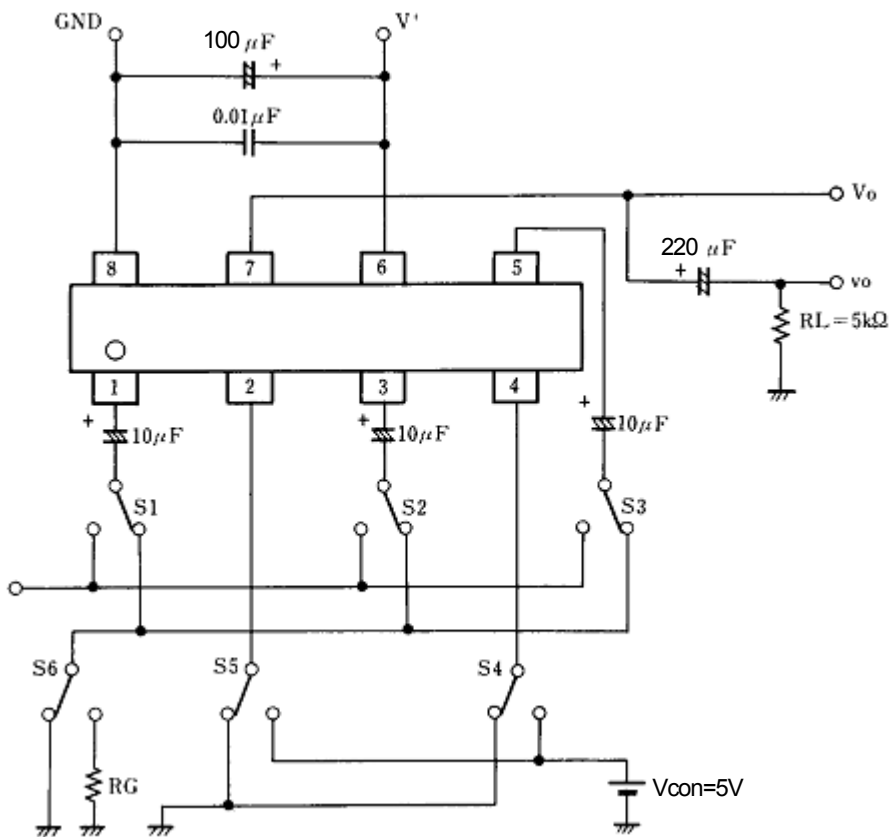
($V^+ = 5\text{V}$, $T_a = 25^\circ\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V^+		+4.5	-	+13.0	V
Operating Current	I_{CC}		-	3.7	4.7	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
Total Harmonic Distortion	THD	$V_{IN} = 2.5V_{PP}$, 1kHz	-	0.05	0.1	%
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



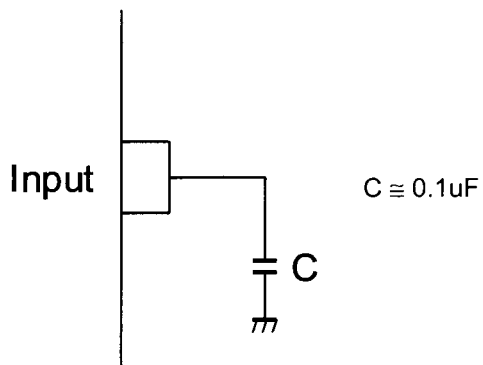
Terminal DC voltage at test circuit (Ta=25°C)

Terminal name	Vin1	Vin2	Vin3	Vout
DC voltage (V)	$V^+/2$	$V^+/2$	$V^+/2$	$V^+/2 - 0.7$

NJM2534

■ APPLICATION

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



[CAUTION]
The specifications on this databook are only given for information, without any guarantee as regards either mistakes or omissions. The application circuits in this databook are described only to show representative usages of the product and not intended for the guarantee or permission of any right including the industrial rights.