

LOW VOLTAGE 3ch VIDEO AMPLIFIER WITH LPF

■ GENERAL DESCRIPTION

The **NJM2573** is a Low Voltage 3ch Video Amplifier with LPF. Internal 75Ω driver is easy to connect TV monitor directly.

The **NJM2573** corresponds to a clamp and bias inputs, and selection of a clamp/ bias is possible for one circuit, and it corresponds to various video signals.

The **NJM2573** features low power and small package, and is suitable for low power design on downsizing of DVC.

■ PACKAGE OUTLINE

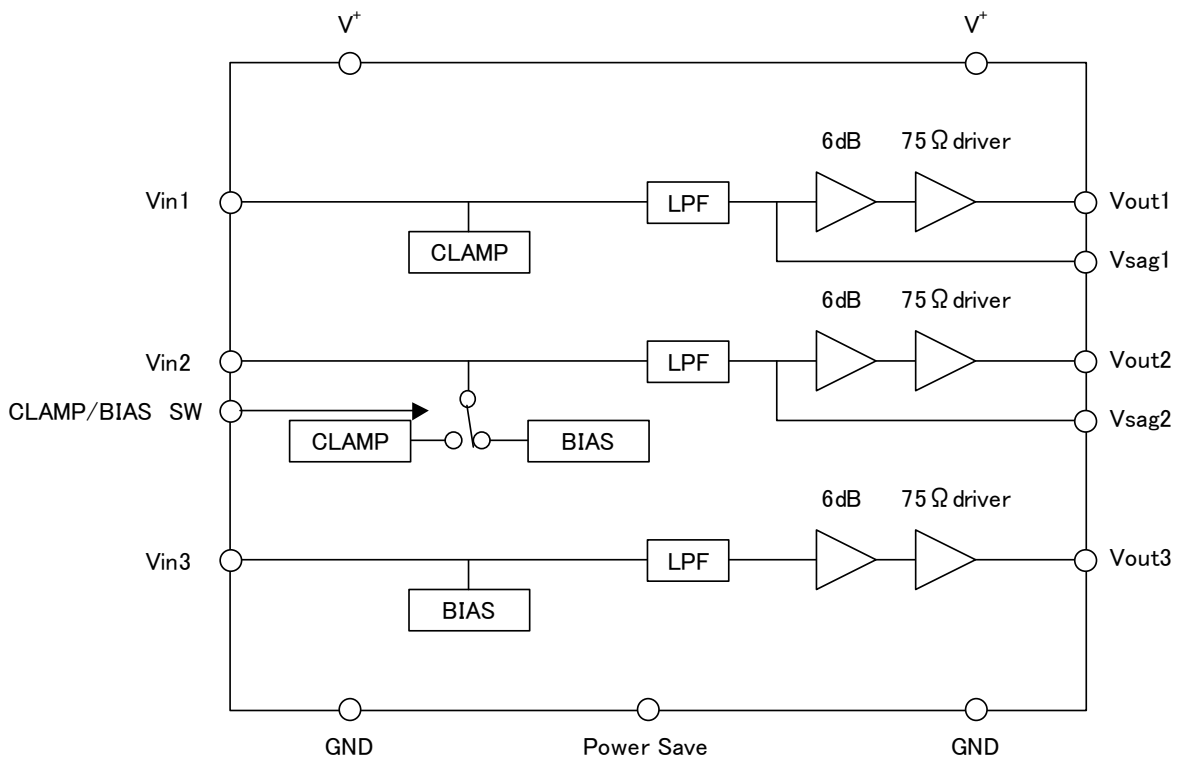


NJM2573V

■ FEATURES

- Operating Voltage 2.8 to 5.5V
- Input type Vin1: CLAMP
 Vin2: CLAMP/ BIAS
 Vin3: BIAS
- Internal LPF
- Internal 6dB amplifier
- Internal 75Ω Driver Circuit (2-system drive)
- Internal Power Saving Circuit
- Bipolar Technology
- Package Outline SSOP14

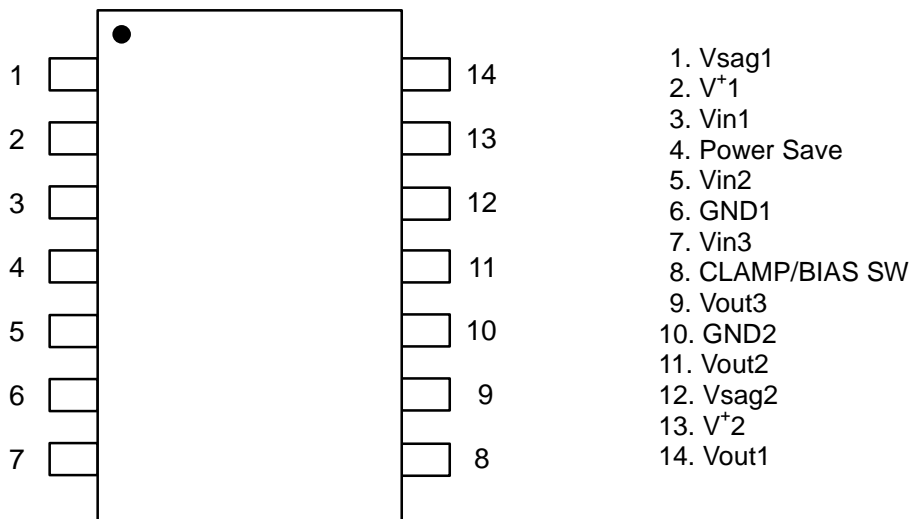
■ BLOCK DIAGRAM



NJM2573

■PIN CONFIGURATION

SSOP14



■ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺	7.0	V
Power Dissipation	P _D	300	mW
Operating Temperature Range	T _{opr}	-40 to +85	°C
Storage Temperature Range	T _{stg}	-40 to +125	°C

■ELECTRICAL CHARACTERISTICS (V⁺=3.0V, R_L=150Ω, Ta=25°C)

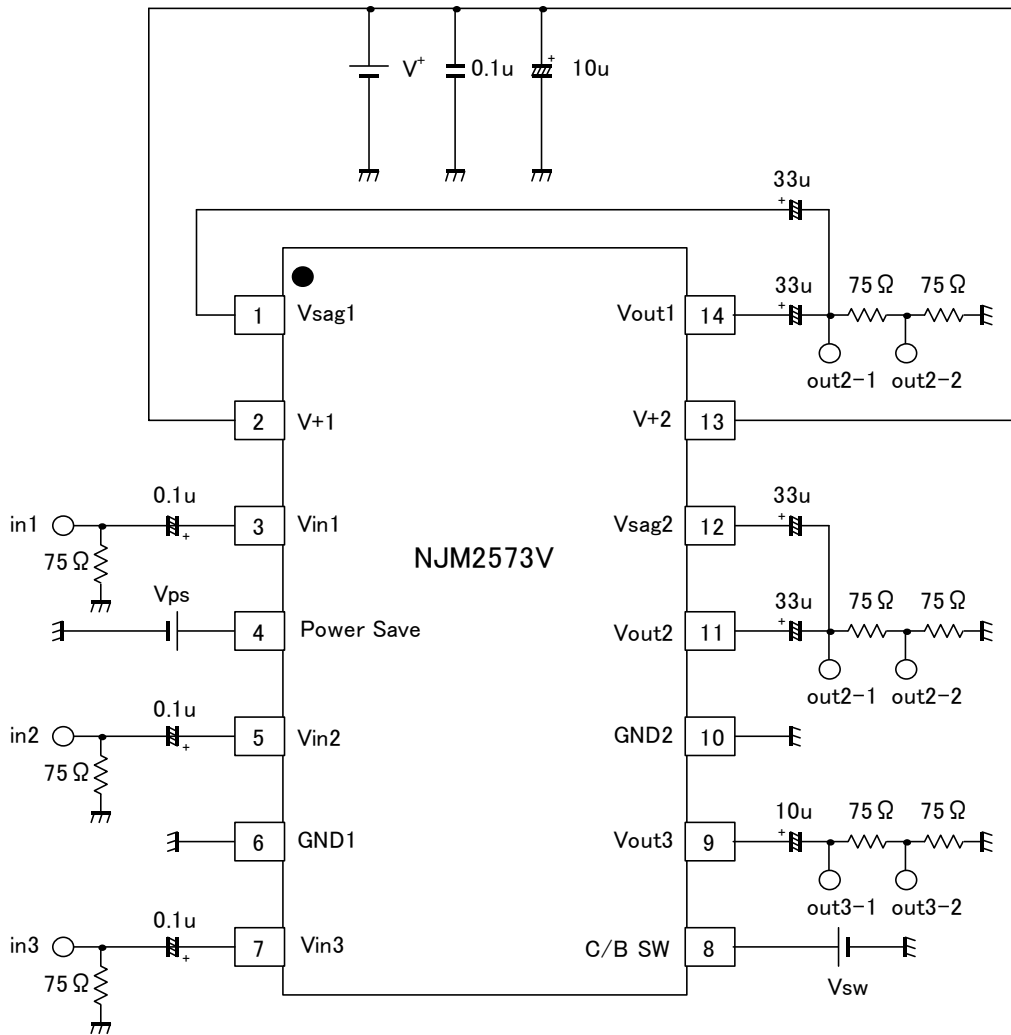
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V _{opr}		2.8	3.0	5.5	V
Operating Current	I _{CC}	No Signal	-	18.0	26.0	mA
Operating Current at Power Save	I _{save}	Power Save Mode	-	60	90	uA
Maximum Output Voltage Swing	V _{omv}	f=1kHz, THD=1%, CLAMP Input	2.2	2.4	-	Vp-p
	V _{om} RGB	f=1kHz, THD=1%, BIAS Input	1.4	2.2	-	
Voltage Gain	G _v	Vin=100kHz, 1.0Vp-p, Sin Signal (CLAMP) Vin=100kHz 0.7Vp-p, Sin Signal (BIAS)	6.0	6.4	6.8	dB
Low Pass Filter Characteristic	G _{fy4.5M}	Vin=4.5MHz/100kHz, 1.0Vp-p(CLAMP) Vin=4.5MHz/100kHz, 0.7Vp-p(BIAS)	-0.5	0.0	+0.5	dB
	G _{fy8M}	Vin=8MHz/100kHz, 1.0Vp-p(CLAMP) Vin=8MHz/100kHz, 0.7Vp-p(BIAS)	-	-2.0	-	
	G _{fy16M}	Vin=16MHz/100kHz, 1.0Vp-p(CLAMP) Vin=16MHz/100kHz, 0.7Vp-p(BIAS)	-	-12	-	
Cross talk	CT	Vin=4.43MHz, 1.0Vp-p, Sin Signal (CLAMP) Vin=4.43MHz 0.7Vp-p, Sin Signal (BIAS)	-	-65	-	dB
Differential Gain	DG	(CLAMP) Vin=1.0Vp-p Input 10step Video Signal	-	0.2	-	%
Differential Phase	DP	(CLAMP) Vin=1.0Vp-p Input 10step Video Signal	-	0.2	-	deg
S/N Ratio	SN _v	(CLAMP) Vin=1.0Vp-p, 100% White Video Signal (BIAS) Vin=0.7Vp-p, 100% Red field Signal	-	+60	-	dB
2nd. Distortion	H _v	(CLAMP) Vin=1.0Vp-p, 3.58MHz, Sin Signal, R _L =75Ω (BIAS) Vin=0.7Vp-p, 3.58MHz, Sin Signal, R _L =75Ω	-	-40	-	dB
SW Change Voltage High Level	V _{thPH}		1.8	-	V ⁺	V
SW Change Voltage Low Level	V _{thPL}		0	-	0.3	

■CONTROL TERMINAL

PARAMETER	STATUS	NOTE
Power Save	H	Power Save: ON
	L	Power Save: OFF
	OPEN	Power Save: OFF
CLAMP/BIAS SW	H	BIAS
	L	CLAMP
	OPEN	CLAMP

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TEST CIRCUIT



■EQUIVALENT CIRCUIT

PIN No.	PIN NAME	FUNCTION	INSIDE EQUIVALENT CIRCUIT
3	VIN1	Clamp input	
4	Power Save	Power save	
5	Vin2	Clamp/Bias input	
-	NC	Non connection	
6	GND1	GND	
7	Vin3	Bias input	

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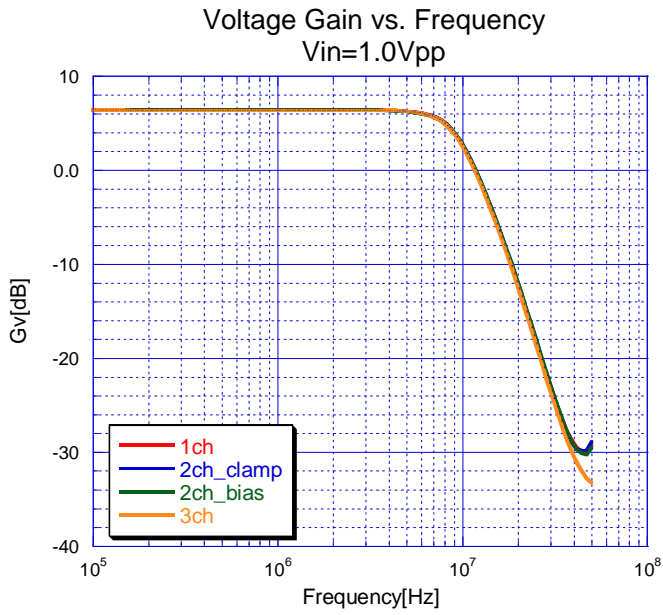
PIN No.	PIN NAME	FUNCTION	INSIDE EQUIVALENT CIRCUIT
8	CLAMP/ BIAS SW	Clamp/Bias switch	
9	Vout3	Bias output	
10	GND2	GND	
11	Vout2	Clamp/Bias output	
12	Vsag2	Sag compensation	
13	V+2	Power Supply	

PIN No.	PIN NAME	FUNCTION	INSIDE EQUIVALENT CIRCUIT
14	Vout1	Clamp output	
1	Vsag1	Sag compensation	
-	NC	Non connection	
2	V+1	Power Supply	

■ APPLICATION

When the power supply voltage is not impressing, please don't impress voltage to the control terminal.

TYPICAL CHARACTERISTICS



[CAUTION]
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