

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

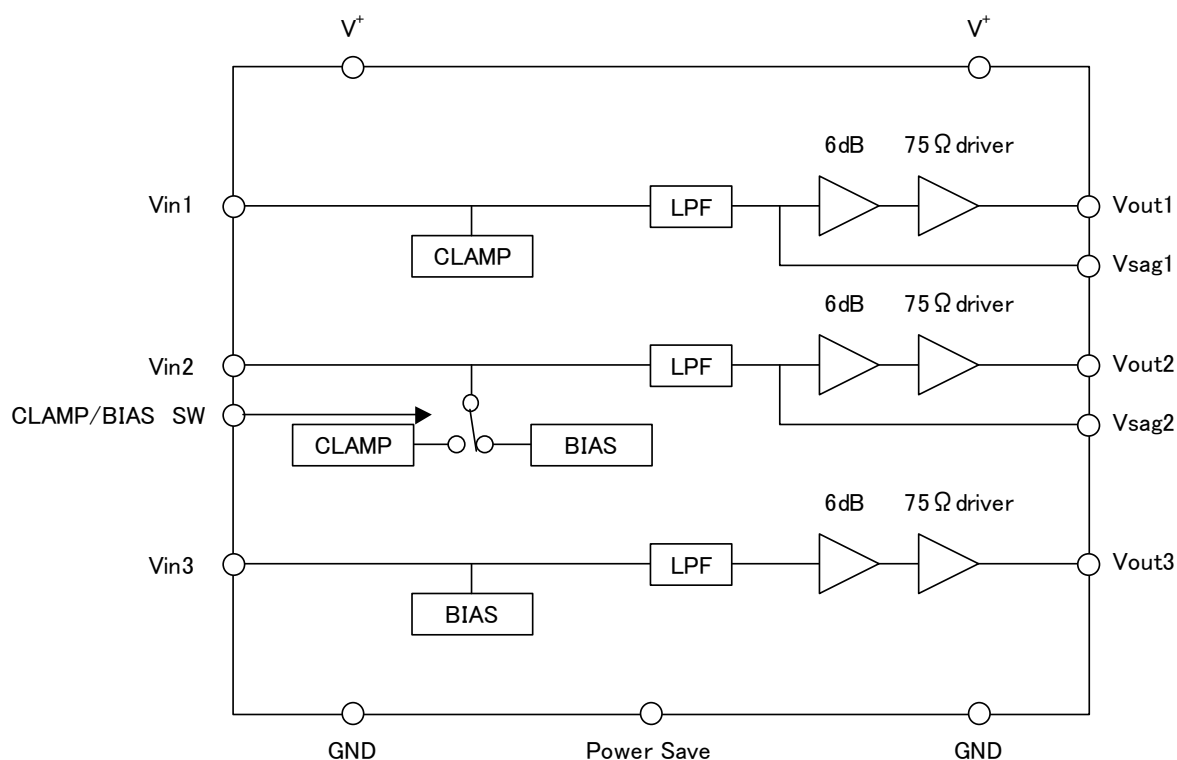


NJM2573V

■ 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

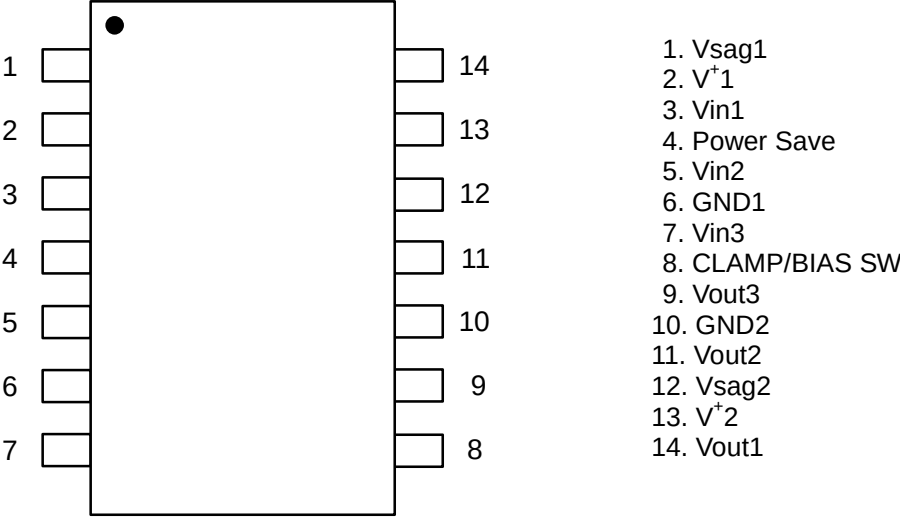


NJM2573



■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	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C

■ELECTRICAL CHARACTERISTICS ($V^+=3.0V, R_L=150\Omega, T_a=25^\circ C$)

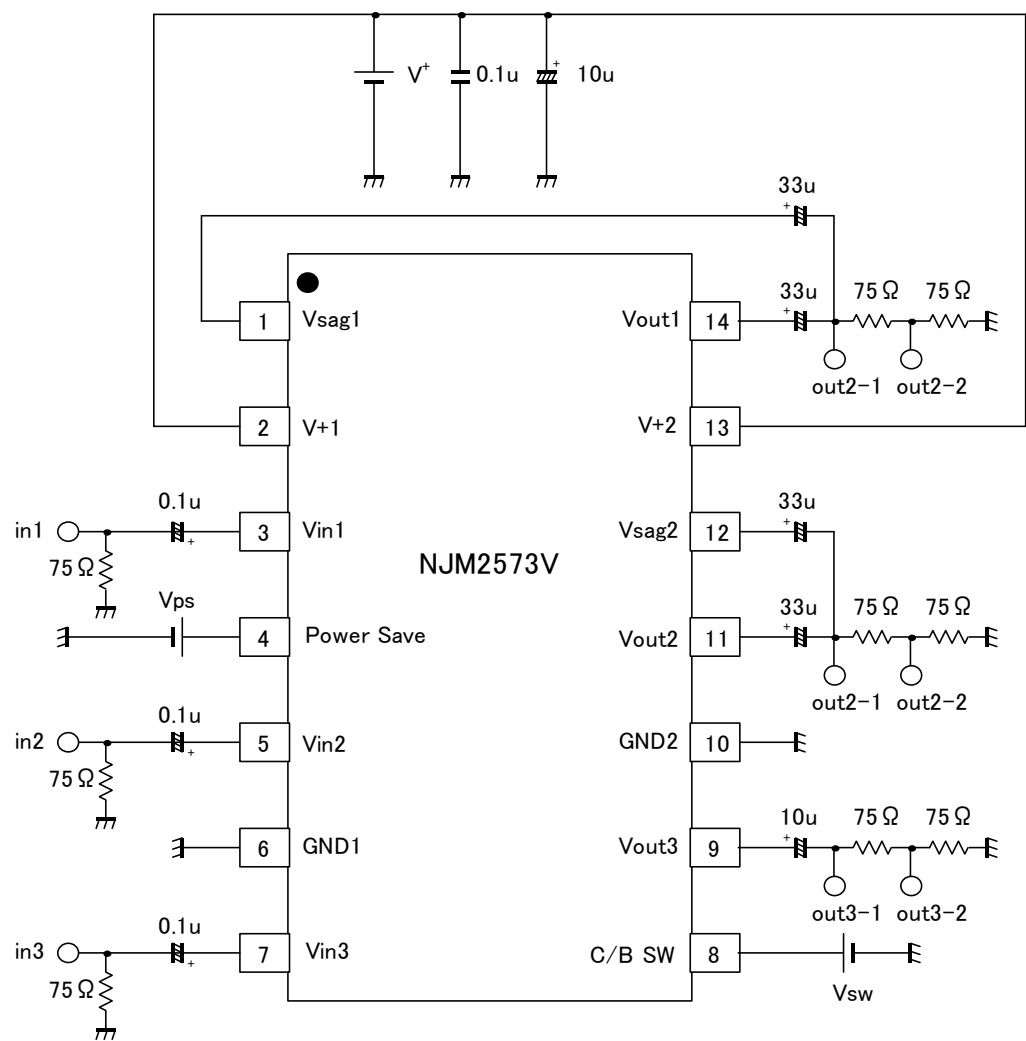
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage	Vopr		2.8	3.0	5.5	V
Operating Current	I _{CC}	No Signal	-	18.0	26.0	mA
Operating Current at Power Save	Isave	Power Save Mode	-	60	90	uA
Maximum Output Voltage Swing	Vomv	f=1kHz, THD=1%, CLAMP Input	2.2	2.4	-	Vp-p
	Vom RGB	f=1kHz, THD=1%, BIAS Input	1.4	2.2	-	
Voltage Gain	Gv	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	Gfy4.5M	Vin=4.5MHz/100kHz, 1.0Vp-p(CLAMP) Vin=4.5MHz/100kHz, 0.7Vp-p(BIAS)	-0.5	0.0	+0.5	dB
	Gfy8M	Vin=8MHz/100kHz, 1.0Vp-p(CLAMP) Vin=8MHz/100kHz, 0.7Vp-p(BIAS)	-	-2.0	-	
	Gfy16M	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	SNv	(CLAMP) Vin=1.0Vp-p, 100% White Video Signal (BIAS) Vin=0.7Vp-p, 100% Red field Signal	-	+60	-	dB
2nd. Distortion	Hv	(CLAMP) Vin=1.0Vp-p, 3.58MHz, Sin Signal, $R_L=75\Omega$ (BIAS) Vin=0.7Vp-p, 3.58MHz, Sin Signal, $R_L=75\Omega$	-	-40	-	dB
SW Change Voltage High Level	VthPH		1.8	-	V^+	V
SW Change Voltage Low Level	VthPL		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

NJM2573

■ 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	

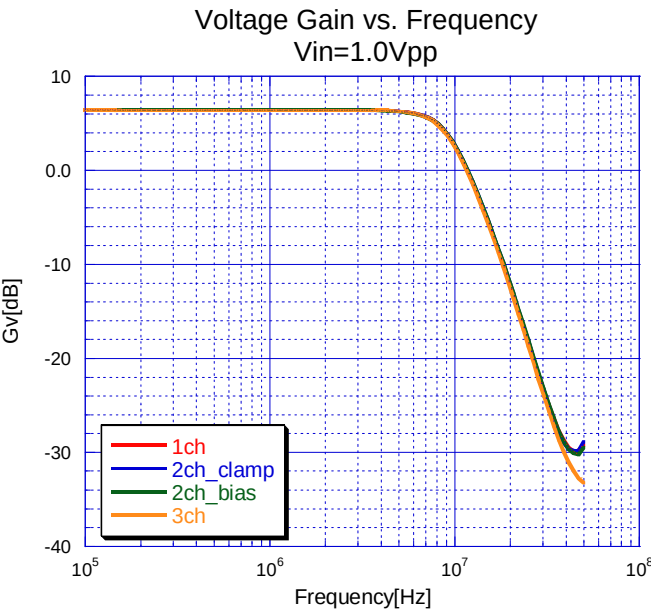
PIN No.	PIN NAME	FUNCTION	INSIDE EQUIVALENT CIRCUIT
8	CLAMP/ BIAS SW	Clamp/Bias switch	
9	Vout3	Bias output	
10	GND2	GND	
11	Vout2	Clamp/Bias output	
12	Vsag2	Sag compensation	
13	V+2	Power Supply	

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]
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.