

## LOW POWER VIDEO AMPLIFIER WITH Y-C MIXER

### ■ GENERAL DESCRIPTION

The **NJM2274** is a low power, 3V operation video amplifier with Y/C mixer and 75 ohm driver, which connect TV monitor directly.

The NJM2274 has mute function, and suitable for energy save products and any low power system, which are Digital Camera, DVC and other video amplifier system.

### ■ PACKAGE OUTLINE

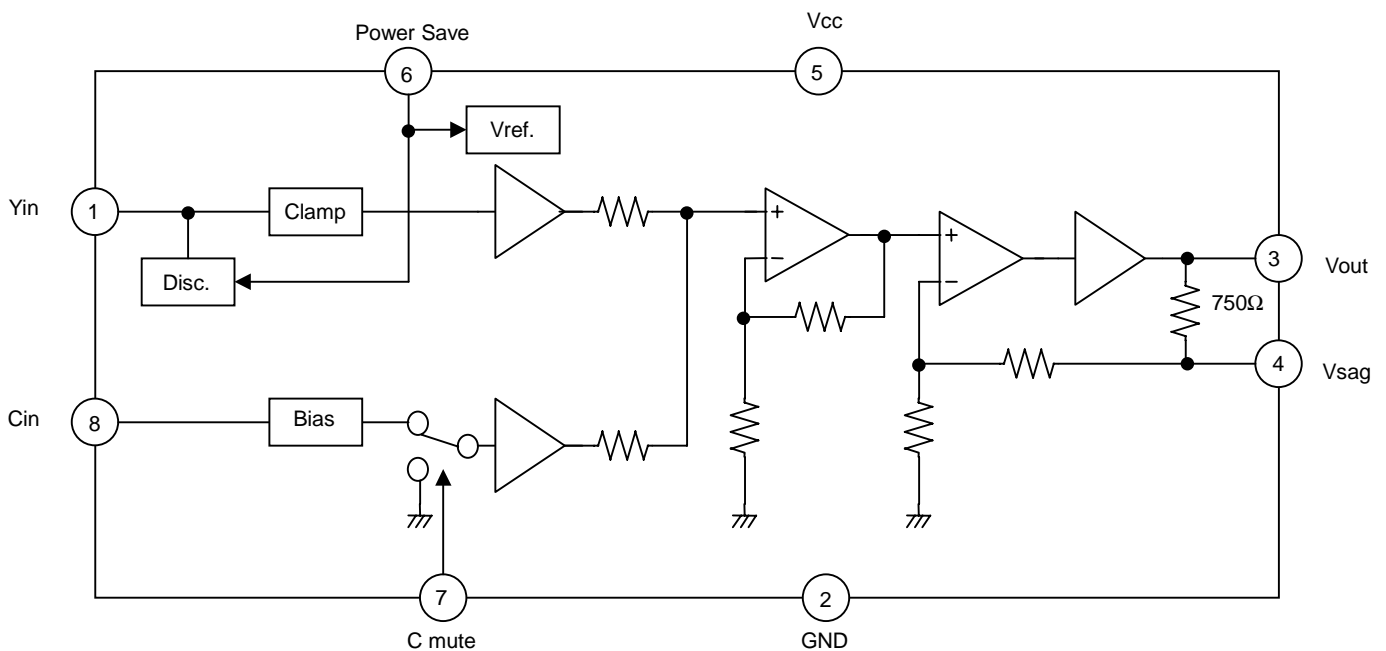


**NJM2274R**

### ■ FEATURES

- Low Operating Voltage 2.8 to 5.5V
- Internal Y/C MIX Circuit
- Y-input : Clamp  
C-input : Bias
- Operating Current 9.3mA typ. at  $V^+=3.0V$
- Operating Current at Power Save 0.9mA typ. at  $V^+=3.0V$
- Bipolar Technology
- Package Outline VSP8

### ■ BLOCK DIAGRAM



# NJM2274

## ■ ABOSOLUTE MAXIMUM RATINGS

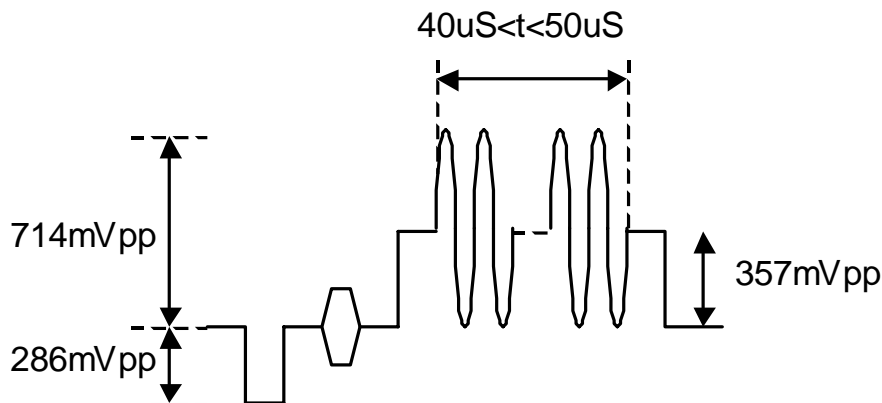
(Ta=25°C)

PARAMRTER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup>	7.0	V
Power Dissipation	P <sub>D</sub>	320	mW
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C

## ■ ELECTRICAL CHARACTERISTICS (V<sup>+</sup>=3.0V, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage	Vopr		2.8	3.0	5.5	V
Operating Current	Iccq	No Signal	-	9.3	12.0	mA
Operating Current (Power Save Mode)	Iccs	Power Save Mode	-	0.9	1.2	mA
Maximum Output Voltage	Vom	f=1kHz, THD=1%	2.2	-	-	Vpp
Voltage Gain	Gv	Yin=100kHz, 0.5Vpp, Sine Video Signal (note)	11.9	12.4	12.9	dB
Frequency Characteristic	Gf	Yin=10MHz/100kHz, 0.5Vpp, Sine Video Signal (note)	-1.0	0	+1.0	dB
Differential Gain	DG	Yin=0.5Vpp, 10Step Video Signal	-	2.5	-	%
Differential Phase	DP	Yin=0.5Vpp, 10Step Video Signal	-	1.0	-	deg
Chroma Mute Cross talk	CT	Cin=4.43MHz, 0.1Vpp	-	-65	-	dB
S/N	SNv	Yin=0.5Vpp, 100%White Video Signal, Cin=AC gnd Wide Band 100kHz to 6MHz, R <sub>L</sub> =75ohm	-	-60	-	dB
Second Distortion	Hv	Yin=0.5Vpp, 3.58MHz Red Field Video Signal, Cin=AC gnd R <sub>L</sub> =75ohm	-	-40	-	dB
Input Resistance	Zinc	Chroma Input	16	20	24	kΩ
Mute Switch Change Voltage	VthMH		1.4	-	V <sup>+</sup>	V
	VthML		0	-	0.6	
Power Save Switch Change Voltage	VthPH		1.4	-	V <sup>+</sup>	V
	VthPL		0	-	0.6	

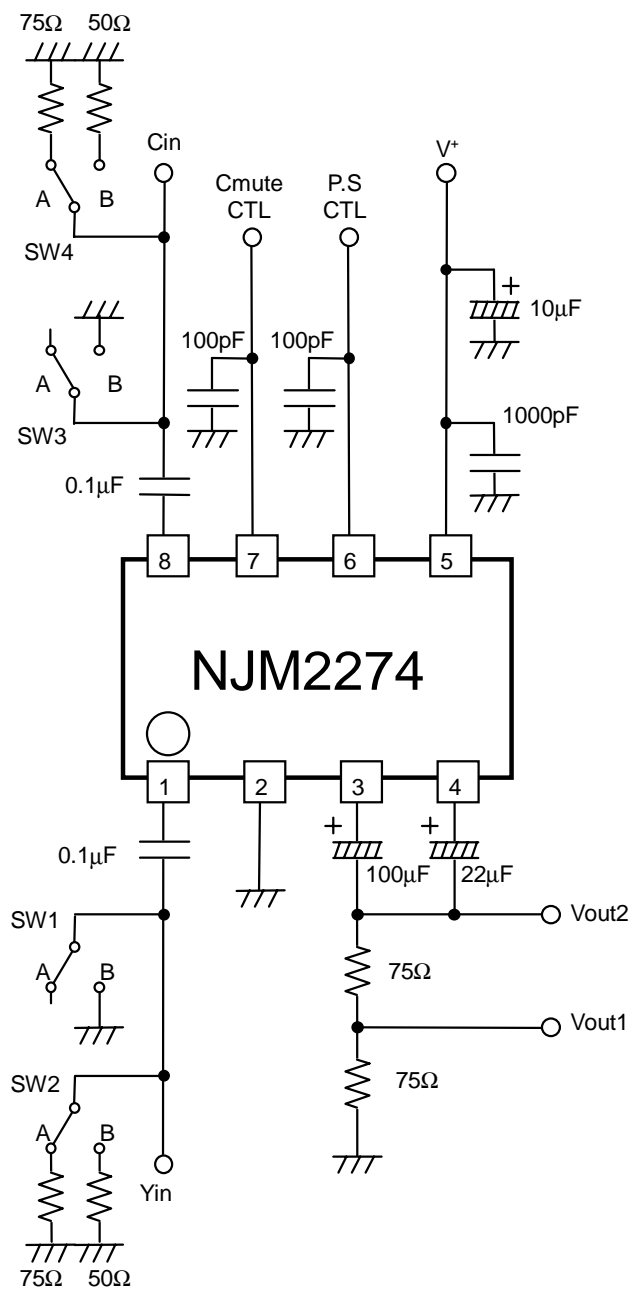
(note) Sine Video Signal



## CONTROL TERMINAL EXPLANATION

PARAMETER	STATUS	NOTE
Chroma Mute	H	Chroma Mute : ON
	L	Chroma Mute : OFF
	OPEN	Chroma Mute : OFF
Power Save	H	Power Save : OFF
	L	Power Save : ON
	OPEN	Power Save : ON

## TEST CIRCUIT



## MEMO

**[CAUTION]**

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