

LOW VOLTAGE VIDEO AMPLIFIER WITH LPF

■GENERAL DESCRIPTION

The **NJM2563** is a Low Voltage Video Amplifier contained LPF circuit. Internal 75Ω driver is easy to connect TV monitor directly.

The **NJM2563** features low power and small package, and is suitable for low power design on downsizing of DSC and DVC.

■PACKAGE OUTLINE

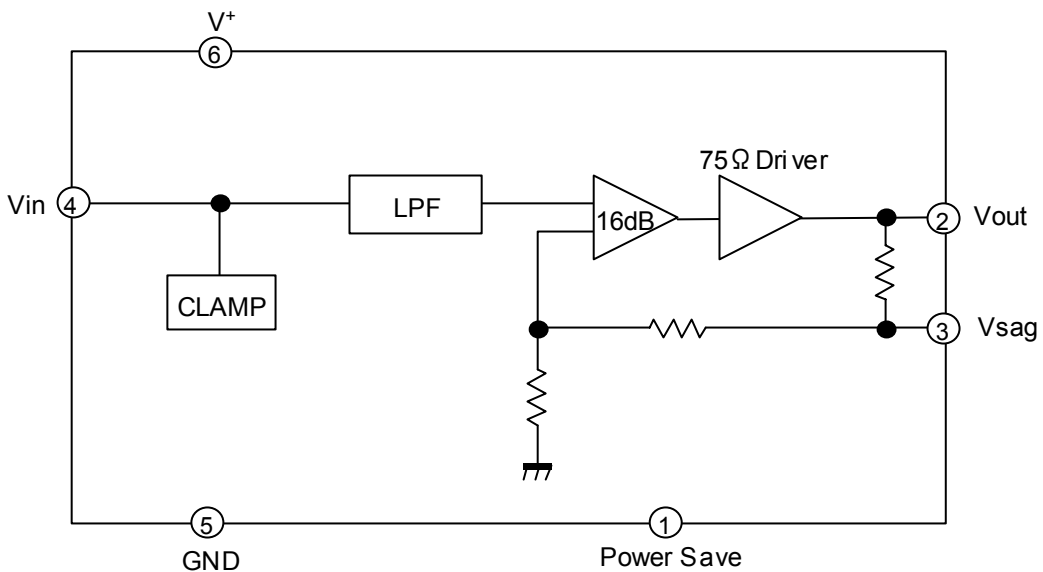
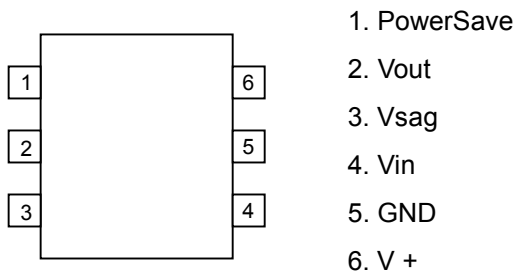


NJM2563F1

■FEATURES

- Operating Voltage 2.8 to 5.5V
- 16dB amplifier
- Internal LPF -31dB at 19MHz typ.
- Internal 75Ω Driver Circuit (2-system drive)
- Power Save Circuit
- Bipolar Technology
- Package Outline MTP6

■BLOCK DIAGRAM



NJM2563

■ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺	7.0	V
Power Dissipation	P _D	200	mW
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C

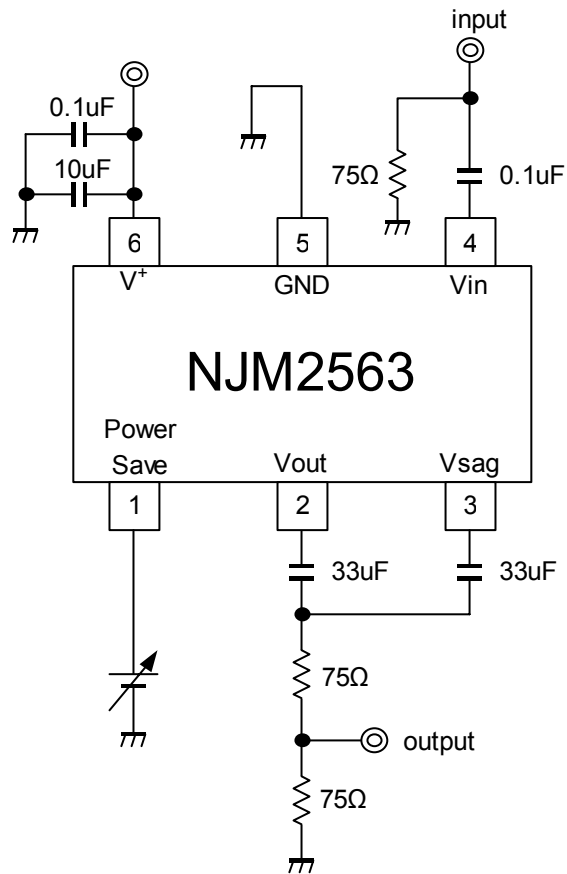
■ELECTRICAL CHARACTERISTICS (V⁺=3.0V, R_L=150Ω, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Current	I _{CC}	No Signal	-	8.0	12.0	mA
Operating Current at Power Save	I _{save}	Power Save Mode	-	30	50	μA
Maximum Output Voltage Swing	V _{omv}	f=100kHz, THD=1%	2.2	2.5	-	V _{p-p}
Voltage Gain	G _v	V _{in} =100kHz, 0.3V _{p-p} , Input Sine Signal	16.1	16.5	16.9	dB
Low Pass Filter Characteristic	G _{fy} 4.5M	V _{in} =4.5MHz/100kHz, 0.3V _{p-p}	-0.6	-0.1	0.4	dB
	G _{fy} 19M	V _{in} =19MHz/100kHz, 0.3V _{p-p}	-	-31	-21	
Differential Gain	DG	V _{in} =0.3V _{p-p} , 10step Video Signal	-	0.5	-	%
Differential Phase	DP	V _{in} =0.3V _{p-p} , 10step Video Signal	-	0.5	-	deg
S/N Ratio	SN _v	V _{in} =0.3V _{p-p} , R _L =75Ω 100% White Video Signal, 100KHz to 6MHz	-	+60	-	dB
2nd. Distortion	H _v	V _{in} =0.3V _{p-p} , 3.58MHz, Sine Signal, R _L =75Ω	-	-50	-	dB
SW Change Voltage High Level	V _{thPH}	Active	1.8	-	V ⁺	V
SW Change Voltage Low Level	V _{thPL}	Non-active	0	-	0.3	

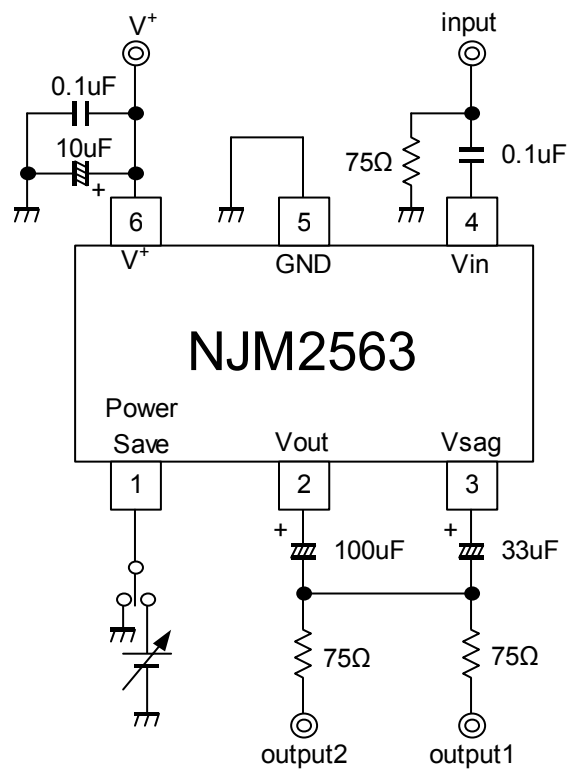
■CONTROL TERMINAL

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

TEST CIRCUIT



APPLICATION CIRCUIT (2-system drive)



NJM2563

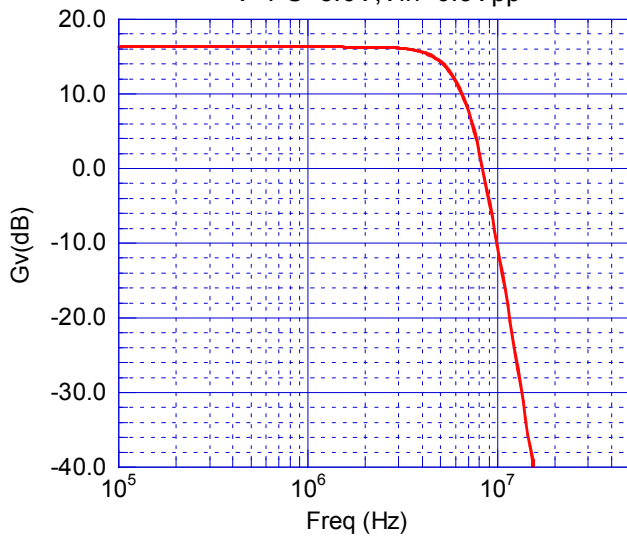
■ TERMINAL DESCRIPTION

No.	SYMBOL	VOLTAGE	EQUIVALENT CIRCUIT
1	Power Save	-	
2	Vout	0.33V	
3	Vsag	-	
4	Vin	1.10V	
5	GND	-	
6	V+	3V	

■ TYPICAL CHARACTERISTICS

Voltage Gain vs. Frequency

V=PS=3.0V, Vin=0.3Vpp



[CAUTION]

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