

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

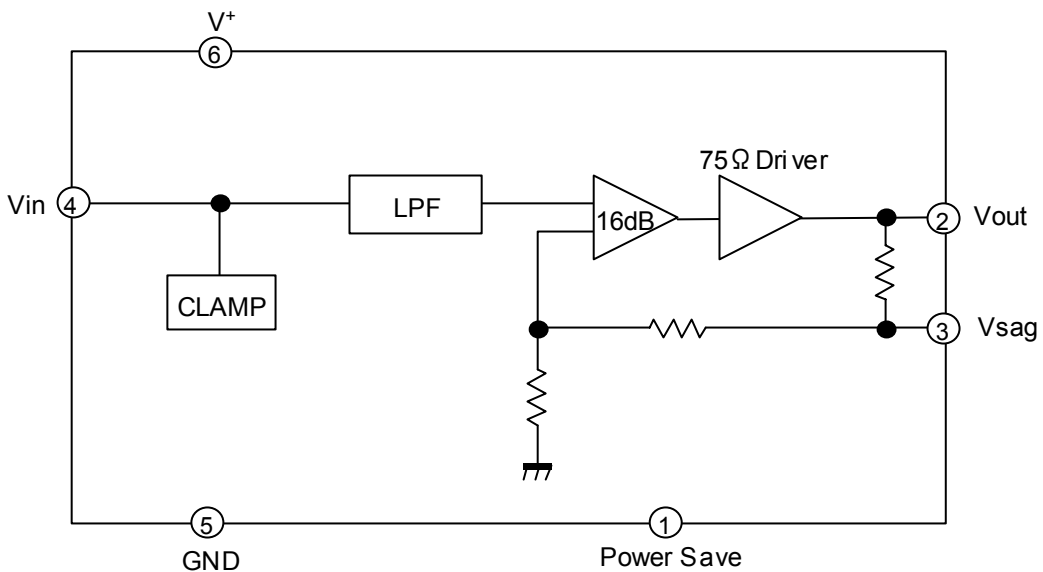
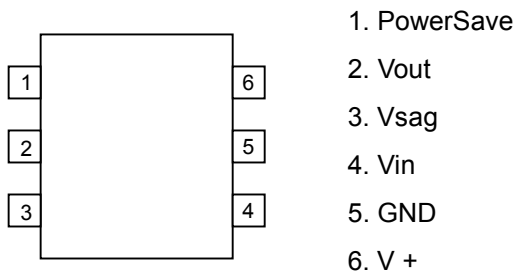


NJM2563F1

■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

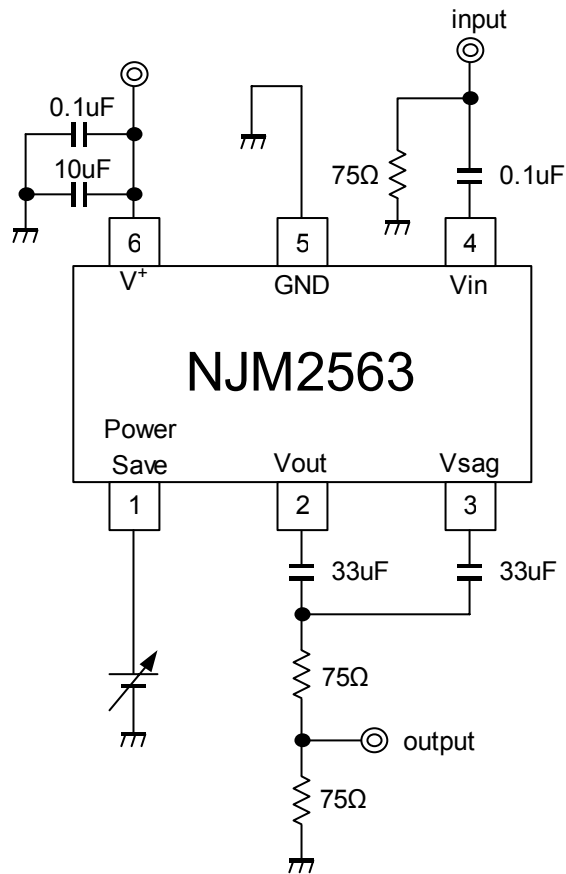
■ELECTRICAL CHARACTERISTICS (V⁺=3.0V, R_L=150Ω, Ta=25°C)

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	uA
Maximum Output Voltage Swing	V _{omv}	f=100kHz, THD=1%	2.2	2.5	-	Vp-p
Voltage Gain	G _v	V _{in} =100kHz, 0.3Vp-p, Input Sine Signal	16.1	16.5	16.9	dB
Low Pass Filter Characteristic	G _{fy} 4.5M	V _{in} =4.5MHz/100kHz, 0.3Vp-p	-0.6	-0.1	0.4	dB
	G _{fy} 19M	V _{in} =19MHz/100kHz, 0.3Vp-p	-	-31	-21	
Differential Gain	DG	V _{in} =0.3Vp-p, 10step Video Signal	-	0.5	-	%
Differential Phase	DP	V _{in} =0.3Vp-p, 10step Video Signal	-	0.5	-	deg
S/N Ratio	SN _v	V _{in} =0.3Vp-p, R _L =75Ω 100% White Video Signal, 100KHz to 6MHz	-	+60	-	dB
2nd. Distortion	H _v	V _{in} =0.3Vp-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	

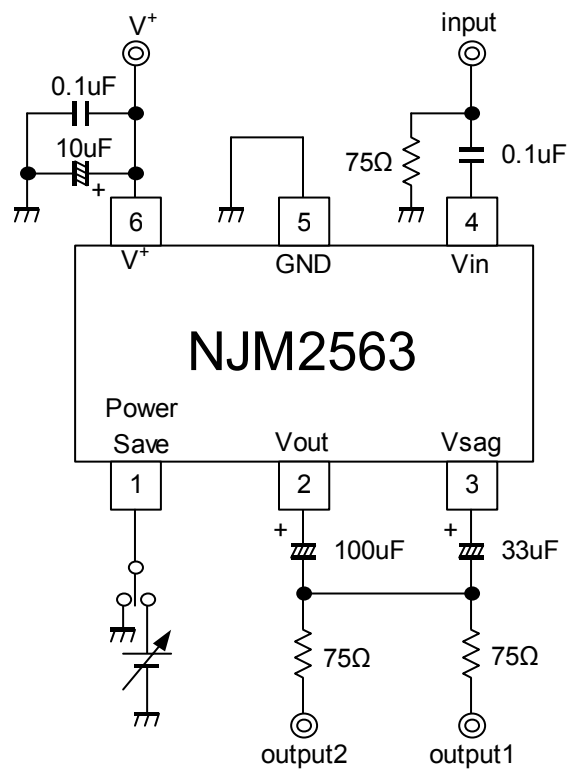
■CONTROL TERMINAL

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

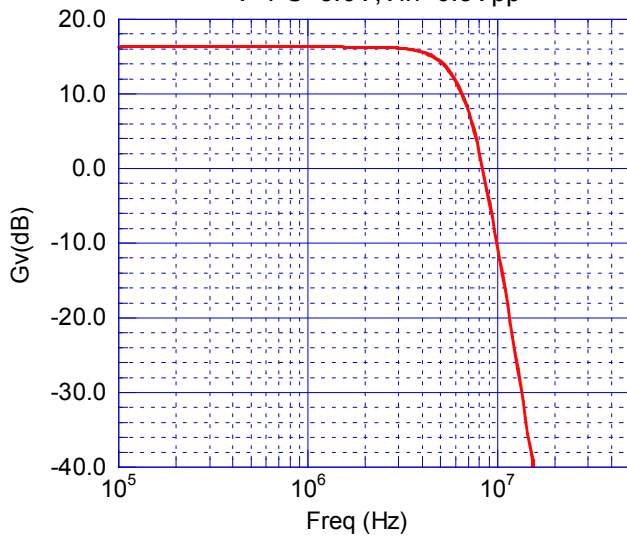
■ TERMINAL DESCRIPTION

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]

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.