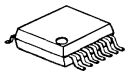
Video Amplifier with 75 ohms Driver

■GENERAL DESCRIPTION

THE NJM2568 is a video amplifier with 75 ohms drivers, which includes LPF and BPF of both Y and C system.

THE NJM2568 can compose the output circuit of digital video items with a little external components. It is suitable for portable items.

■PACKAGE OUTLINE

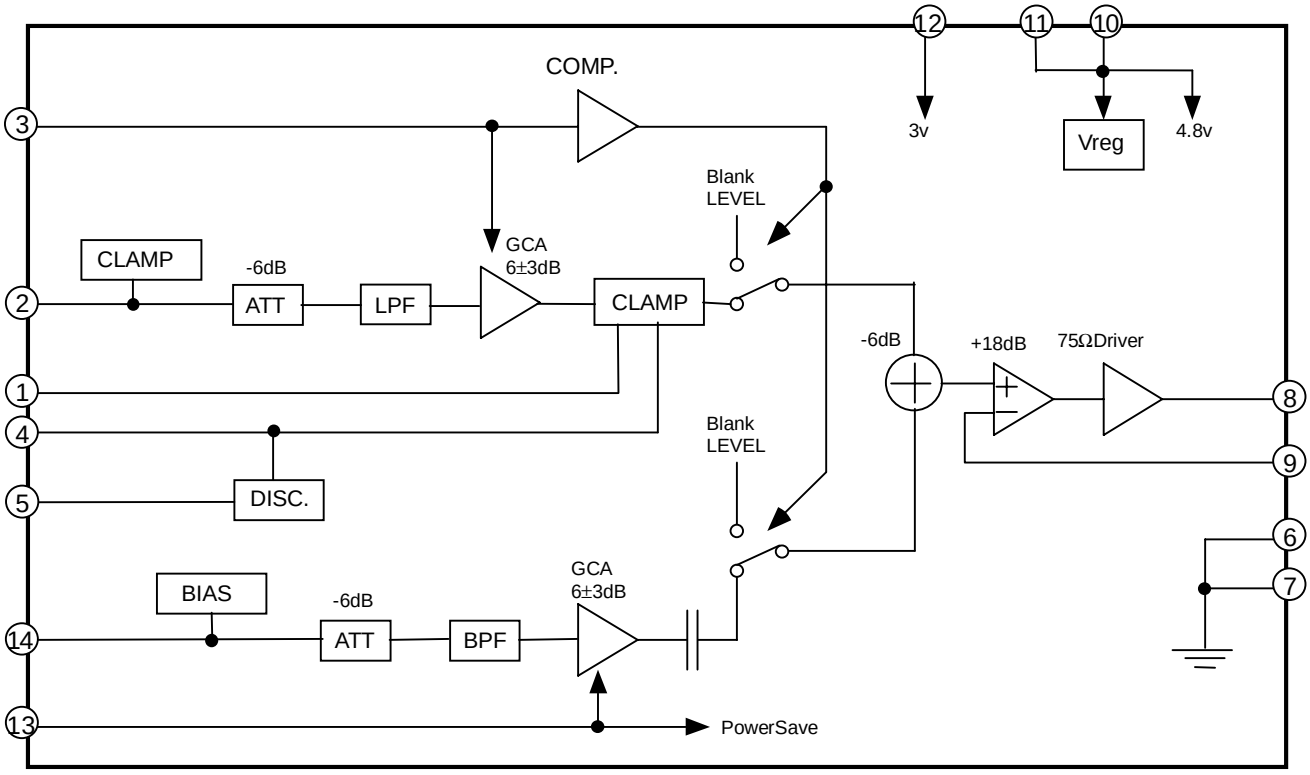


NJM2568V

■FEATURES

- ●Operating Voltage V^+1=4.5 to 5.3V,V^+2=2.7 to 5.3V
- ●Operating Current 9.5mAtyp.V^+=4.8V
  7.3mAtyp.V^+=3.0V
- ●Internal LPF,BPF
- ●Internal Clamp Discharge
- ●Bipolar Technology
- ●Package Outline SSOP14

■BLOCK DIAGRAM



1.CLAMP REF	8.V_{SAG}
2.Y_{IN}	9.V_{OUT}
3.GCA CTLY/MUTE	10.V^+1
4.CLAMP	11.V^+1
5.DIS CTL	12.V^+2
6.GND	13.GCA CTLC/POWER SAVE
7.GND	14.C_{IN}

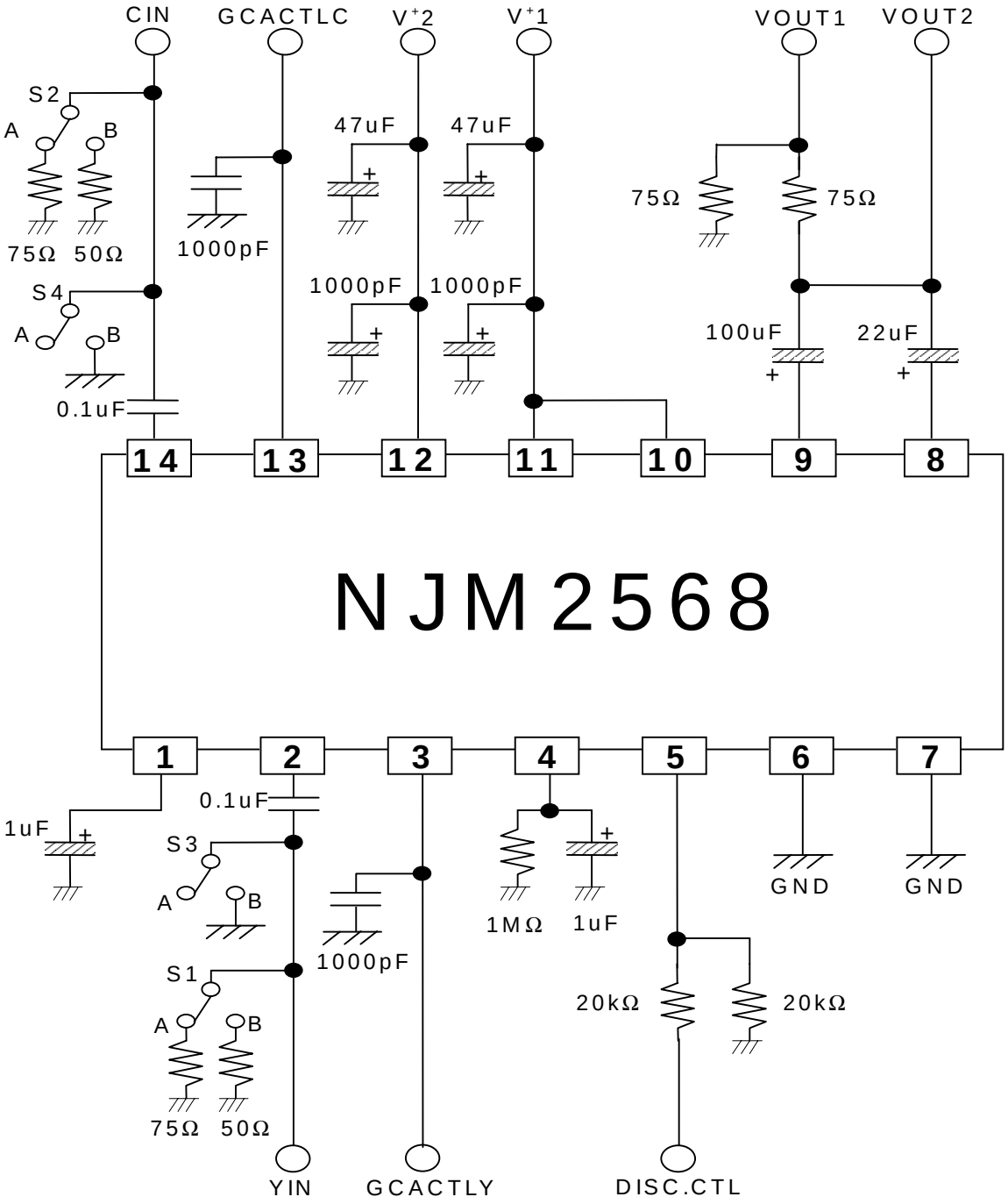
■**ABSOLUTE MAXIMUM RATINGS** (Ta=25°C)

PARAMETERS	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+	7.0	V
Power Dissipation	P_D	300	mW
Operating Temperature Range	Topr	-20 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C

■**ELECTRICAL CHARACTERISTICS** (Ta=25°C,V^+1=4.8V,V^+2=3.0V,R_L=150Ω)

PARAMETERS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Current 1	I_{CC}1	V^+1=4.8V,No Signal	-	9.5	12.5	mA
Operating Current 1 (Power Save Mode)	Isave1	V^+1=4.8V,Power Save	-	1.6	2.1	mA
Operating Current 2	Icc2	V^+2=3.0V,No Signal	-	7.3	10.0	mA
Operating Current2 (Power Save Mode)	Isave2	V^+2=3.0V,Power Save	-	0.37	0.9	mA
(Y Amplifier)						
Voltage Gain 1	Gv_Y1	Y_{IN} to V_{OUT},GCACTLY=0.5V 100kHz,0.5Vp-p @Sine Wave	+3.0	+6.0	+9.0	dB
Voltage Gain 2	Gv_Y2	Y_{IN} to V_{OUT},GCACTLY=2.5V 100kHz,0.5Vp-p @Sine Wave	+13.0	+16.0	+19.0	dB
(C Amplifier)						
Voltage Gain 1	Gv_C1	C_{IN} to V_{OUT},GCACTLY=0.5V 4MHz,143mVp-p @Sine Wave	+3.0	+6.0	+9.0	dB
Voltage Gain 2	Gv_C2	C_{IN} to V_{OUT},GCACTLC=2.5V 4MHz,143mVp-p @Sine Wave	+13.0	+16.0	+19.0	dB
(Filter Characteristics)						
LPF (Y_{IN})	Gf_{Y6M}	6MHz/100kHz,100mVp-p @Sine Wave	-1.0	0	-	dB
	$Gf_{Y7.2M}$	7.2MHz/100kHz,100mVp-p@Sine Wave	-1.5	0	-	dB
	Gf_{Y20M}	20MHz/100kHz,100mVp-p@Sine Wave	-	-30	-20	dB
	DL_Y	Group Delay |GD3MHz-GD6MHz|	-	60	100	nsec
BPF (C_{IN})	$Gf_{C\pm1M}$	±1MHz/4MHz,100mV@Sine Wave	-1.0	0	-	dB
	$Gf_{C\pm1.6M}$	±1.6MHz/4MHz,100mV@Sine Wave	-3.0	0	-	dB
	Gf_{C500k}	500kHz/4MHz,100mVp-p@Sine Wave	-	-15	-10	dB
	Gf_{C20M}	20MHz/4MHz,100mVp-p@Sine Wave	-	-25	-10	dB
	DL_C	Group Delay |GD3MHz-GD6MHz|	-	60	90	nsec
(YC Delay)						
YC Delay	T_{YC}	T_{YOUT}-T_{COUT} at 4MHz	-	+25	-	nsec
(Maximum Output Swing)						
V-OUT	V_{OVM}	100kHz,Sine Wave,R_L=75Ω	1.2	-	-	Vp-p
(GCA Control Signal)						
GCACTLY	V_{GC}1	GCA Control Voltage	0.5	-	2.5	V
	V_{GL}1	MUTE Voltage	GND	-	0.3	V
GCACTLC	V_{GC}2	GCA Control Voltage	0.5	-	2.5	V
	V_{GL}2	Power Down Voltage	GND	-	0.3	V

■TEST CIRCUIT



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