

## HAEDPHONE AMPLIFIER for CD-ROM

### ■ GENERAL DESCRIPTION

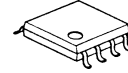
The **NJM2769A** is a headphone amplifier designed for CD-ROM.

It includes 6dB closed loop gain and mute circuit which require few external component.

The **NJM2769A** realizes very low turn-noise at mute mode.

It is suitable for CD-ROM, and other general audio headphone amplifier application.

### ■ PACKAGE OUTLENE

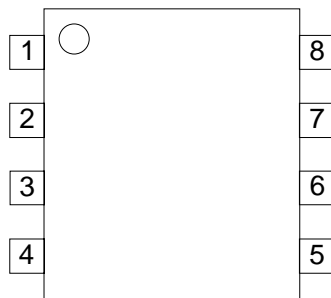


NJM2769AM

### ■ FEATURES

- Operating Voltage            4.5-5.5V
- Operating Current            2mA typ., at  $V^+ = 5V$
- Fixed Gain                    6dB typ.
- Stereo Headphone Output
- Internal Mute Circuit
- Bipolar Technology
- Package Outline              DMP8

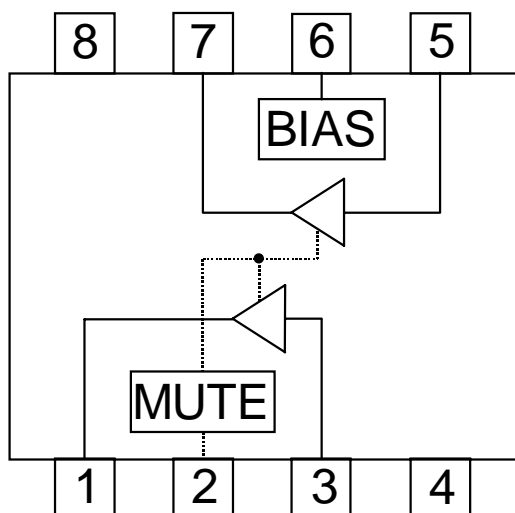
### ■ PIN CONFIGURATION



### PIN FUNCTION

- 1.OUT1
- 2.MUTE
- 3.IN1
- 4.GND
- 5.IN2
- 6.BIAS
- 7.OUT2
- 8. $V^+$

### ■ BLOCK DIAGRAM



**■ ABSOLUTE MAXIMUM RANGE** ( $T_a=25^{\circ}\text{C}$ )

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	$V^+$	+7	V
Power Dissipation	$P_D$	(DMP8) 375 750 (note)	mW
Operating Temperature Range	$T_{opr}$	-40 to +85	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-50 to +150	$^{\circ}\text{C}$

(note)At on PC board

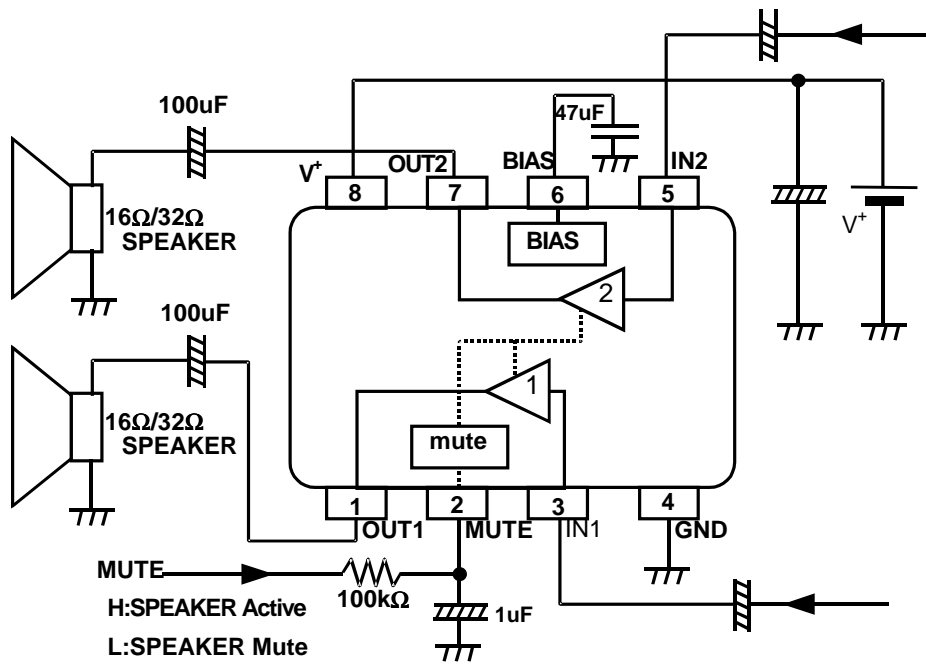
**■ ELECTRICAL CHARACTERISTICS** ( $V^+=5.0\text{V}$ ,  $V_{in}=-6\text{dBV}$ ,  $f=1\text{kHz}$ ,  $R_L=32\Omega$ ,  $T_a=25^{\circ}\text{C}$  unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	$V^+$		4.5	5.0	5.5	V
Operating Current	$I_{CC}$	No Signal	-	2.0	4.0	mA
Reference Voltage	$V_{ref}$	No Signal	-	2.1	-	V
Closed Loop Gain	$G_V$		5	6	7	dB
Channel Balance	$\Delta G_V$		-0.5	0	+0.5	dB
Output Power	$P_{O1}$	$R_L=32\Omega$ , THD=1%	30	50	-	mW
	$P_{O2}$	$R_L=16\Omega$ , THD=1%	40	100	-	mW
Total Harmonic Distortion	THD		-	0.02	0.1	%
Output Noise Voltage	$V_{no}$	$R_g=0\Omega$ , A-Weighted	-	-98 (12.6)	-88 (39.8)	dBV ( $\mu\text{V}_{rms}$ )
Mute Attenuation	ATT	$V_o/V_{in}$	-	-80	-70	dB
Channel Separation	CS		65	80	-	dB
Ripple Rejection Ratio	RR	$V_{ripple}=-20\text{dBV}$ , $R_g=0\Omega$	-	65	-	dB
Input Voltage H-level	$V_{IH}$		2.0	-	$V^+$	V
Input Voltage L-level	$V_{IL}$		0.0	-	0.3	V

**■ CONTROL PIN INFORMATION**

PARAMETER	CONTROL SIGNAL	OPERATING CONDITION
MUTE ON	L	NON-SIGNAL
MUTE OFF	H	OUTPUT SIGNAL

■ TYPICAL APPLICATION



## MEMO

[CAUTION]

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