



# NJM2769A

## HEADPHONE 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 OUTLINE

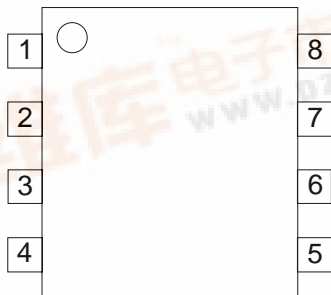


NJM2769AM

### FEATURES

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

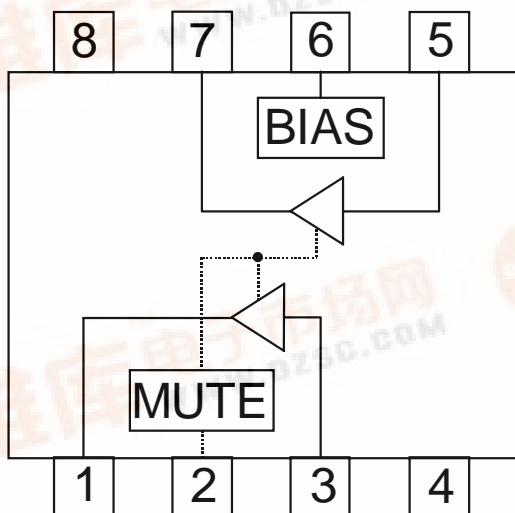
### PIN CONFIGURATION



### PIN FUNCTION

- 1.OUT1
- 2.MUTE
- 3.IN1
- 4.GND
- 5.IN2
- 6.BIAS
- 7.OUT2
- 8.V<sup>+</sup>

### BLOCK DIAGRAM



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

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup>	+7	V
Power Dissipation	P <sub>D</sub>	(DMP8) 375 750 (note)	mW
Operating Temperature Range	T <sub>opr</sub>	-40 to +85	°C
Storage Temperature Range	T <sub>stg</sub>	-50 to +150	°C

(note)At on PC board

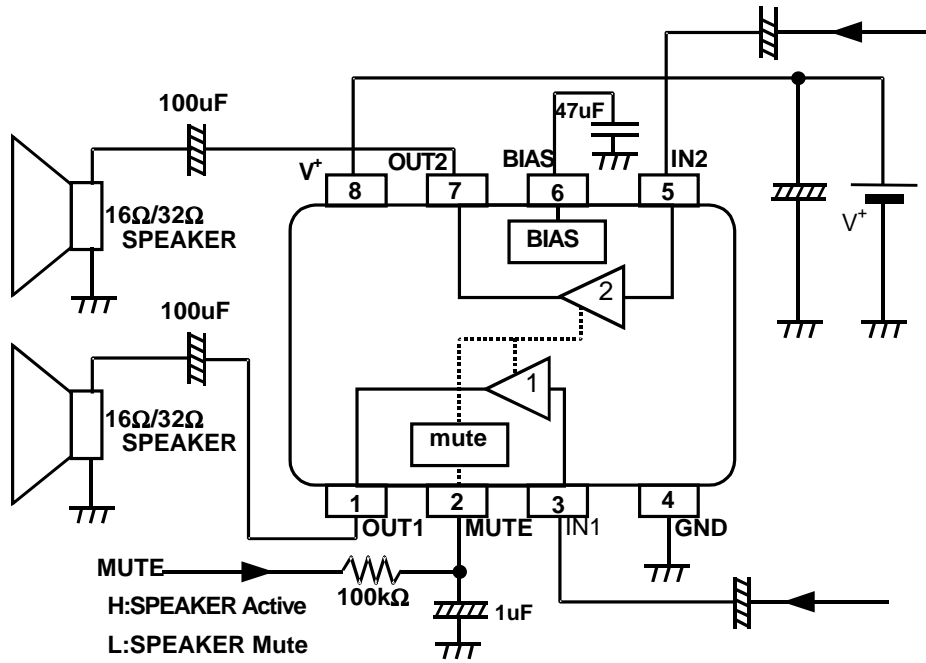
**■ ELECTRICAL CHARACTERISTICS** (V<sup>+</sup>=5.0V, V<sub>in</sub>=-6dBV, f=1kHz, R<sub>L</sub>=32Ω, Ta=25°C unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V <sup>+</sup>		4.5	5.0	5.5	V
Operating Current	I <sub>CC</sub>	No Signal	-	2.0	4.0	mA
Reference Voltage	V <sub>ref</sub>	No Signal	-	2.1	-	V
Closed Loop Gain	G <sub>V</sub>		5	6	7	dB
Channel Balance	ΔG <sub>V</sub>		-0.5	0	+0.5	dB
Output Power	P <sub>O1</sub>	R <sub>L</sub> =32Ω, THD=0.1%	30	50	-	mW
	P <sub>O2</sub>	R <sub>L</sub> =16Ω, THD=0.1%	40	100	-	mW
Total Harmonic Distortion	THD		-	0.02	0.1	%
Output Noise Voltage	V <sub>no</sub>	R <sub>g</sub> =0Ω, A-Weighted	-	-98 (12.6)	-88 (39.8)	dBV (μV <sub>rms</sub> )
Mute Attenuation	ATT	V <sub>o</sub> /V <sub>in</sub>	-	-80	-70	dB
Channel Separation	CS		65	80	-	dB
Ripple Rejection Ratio	RR	V <sub>ripple</sub> =-20dBV, R <sub>g</sub> =0Ω	-	65	-	dB
Input Voltage H-level	V <sub>IH</sub>		2.0	-	V <sup>+</sup>	V
Input Voltage L-level	V <sub>IL</sub>		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



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# MEMO

**[CAUTION]**

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