

# **HEADPHONE AMPLIFIER for CD-ROM**

#### **■** GENERAL DESCRIPTION

The **NJM2769B** is a headphone amplifier designed for CD-ROM.

It includes 6dB closed loop gain and mute circuit, requires few external component.

The **NJM2769B** realizes very low turn-noise at mute mode. It is suitable for CD-ROM, and other general audio headphone amplifier application.

#### PACKAGE OUTLINE



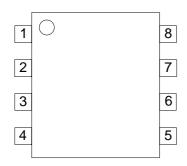


## **■** FEATURES

Operating Voltage
 Operating Current
 Fixed Gain
 2.8 to 5.5V
 2mA typ. at V<sup>+</sup>=5V
 6dB typ.

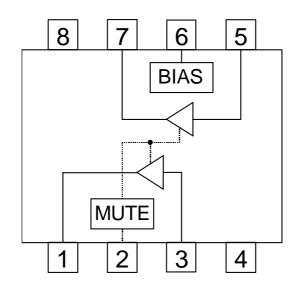
- Stereo Headphone Output
- Internal Mute Circuit
- Bipolar Technology
- Package Outline
   DMP8,TVSP8

## **■ 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 MAXMUM RANGE (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup>	+7	V
Power Dissipation	P <sub>D</sub>	(DMP8) 375 (TVSP8)320	mW
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-50 to +150	°C

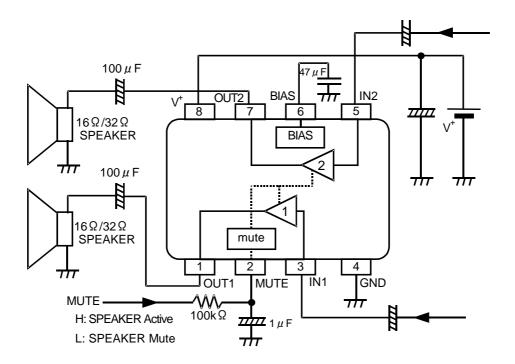
# **ELECTRICAL CHARACTERISTICS** (V<sup>+</sup>=5.0V,Vin=-6dBV,f=1kHz,R<sub>L</sub>=32Ω,Ta=25°C unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V <sup>+</sup>		2.8	5.0	5.5	V
Operating Current	I <sub>CC</sub>	No Signal	-	2.0	4.0	mA
Reference Voltage	Vref	No Signal	-	2.1	-	V
Closed Loop Gain	G∨		5	6	7	dB
Channel Balance	$\Delta G_V$		-0.5	0	+0.5	dB
Output Power	P <sub>O</sub> 1	R <sub>L</sub> =32Ω, THD=0.1%	30	50	-	mW
	P <sub>O</sub> 2	R <sub>L</sub> =16Ω, THD=0.1%	40	100	-	mW
Total Harmonic Distortion	THD		-	0.02	0.1	%
Output Noise Voltage	Vno	Rg=0Ω, A-Weighted	-	-98 (12.6)	-88 (39.8)	dBV (μVrms)
Mute Attenuation	ATT	Vo/Vin	-	-80	-70	dB
Channel Separation	CS		65	80	-	dB
Ripple Rejection Ratio	RR	Vripple=-20dBV, Rg=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	Н	OUTPUT SIGNAL		

## **■ TYPICAL APPLICATION**



[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.