

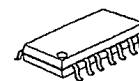
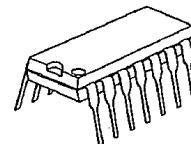
AUDIO FILTER AMPLIFIER

■ GENERAL DESCRIPTION

The NJM2133 is a dual audio filter amplifier for digital audio. It includes two-channel voltage follower, capacitors, and resistors for Low Pass Filter. It also includes standby function which applies to low consumption power design.

It is suitable for CD, CD-ROM, DVD, and any other digital audio equipments.

■ PACKAGE OUTLINE



NJM2133D

NJM2133M

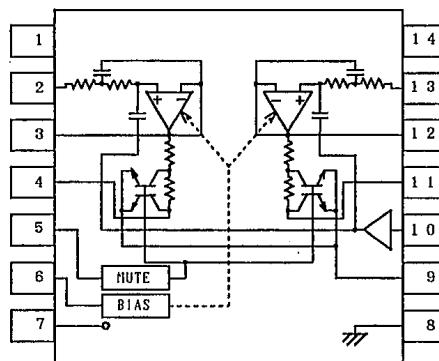


NJM2133V

■ FEATURES

- Single Supply
- Operating Voltage $(V^+ = 4.5 \sim 5.5V)$
- Internal voltage follower (Two channels)
- Internal C and R for LPF
- Standby Function
- Mute Function
- High S/N Ratio (86dB typ.)
- Bipolar Technology
- Package Outline DIP14, DMP14, SSOP14

■ PIN CONFIGURATION



PIN FUNCTION

1:NC	8:GND
2:IN1	9:REF2
3:OUT1	10:REF1
4:MUTE1	11:MUTE 2
5:MUTE	12:OUT2
6:STANDBY	13:IN2
7:V ⁺	14:NC

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺	12	V
Power Dissipation	P _D	(DIP8) 700 (DMP8) 300 (SSOP8) 300	mW
Operating Temperature Range	T _{opr}	-25~+75	°C
Storage Temperature Range	T _{stg}	-40~+125	°C

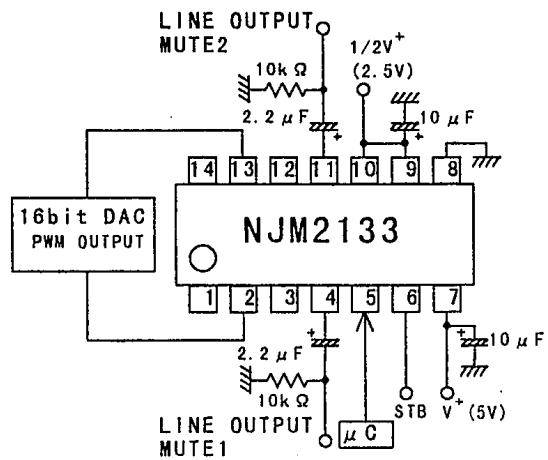
■ ELECTRICAL CHARACTERISTICS

(V⁺=5V, f=1kHz, Vi=1.0Vrms, Vref1=2.5V, Vref2=2.5V, RL=10kΩ, Ta=25°C)

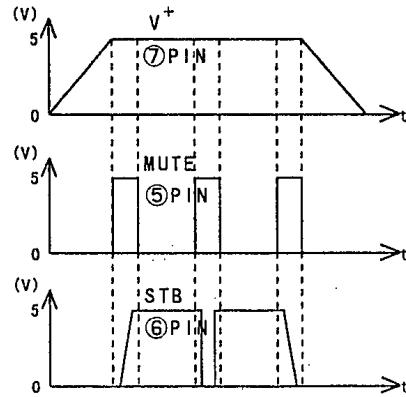
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Current	Icc1		—	4.0	6.0	mA
Standby Operating Current	Icc2	6pin=GND	—	1	—	mA
Voltage Gain1	Gv1		-1.0	0	1.0	dB
Voltage gain2	ΔGv2	f=20kHz, Difference from Gv1	-0.5	0	0.5	dB
Voltage Gain3	Gv3	f=80kHz	—	-3	—	dB
Channel Balance	ΔGv1	at Gv1	-0.5	0	0.5	dB
Total Harmonic Distortion	THD	Vo=0.2Vrms	—	0.015	0.05	%
S/N Ratio	S/N	BW=20~20kHz, Rg=0Ω Vi=1.0Vrms reference	80	86	—	dB
Channel Separation	CS	Measuring CH: no signal, BW=20~20kHz Other CH: Vi=1.0Vrms	74	80	—	dB
Mute Attenuation	ATT	Vi=1.0Vrms, 5pin=V ⁺ , 6pin=GND	70	90	—	dB
Output Offset Voltage Drift	Voff	at Mute ON/OFF	-10	0	10	mV
Mute Voltage	Vmute	5pin, at Mute	3.5	—	—	V
Standby Voltage	Vstb	6pin, at Standby	—	—	1.0	V

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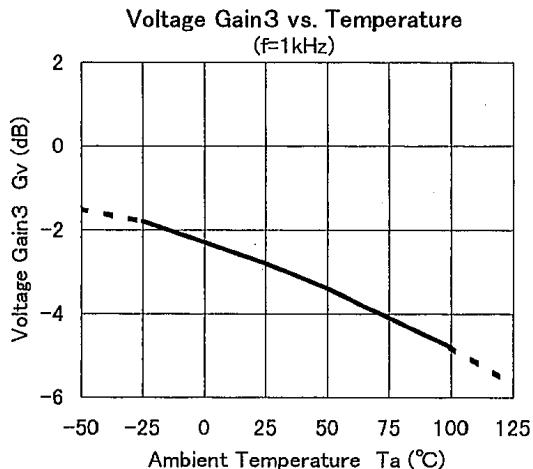
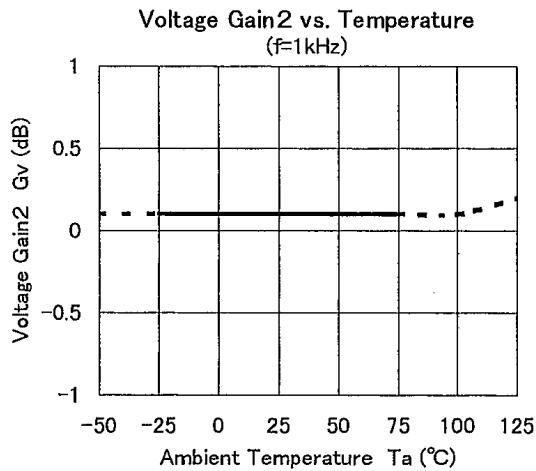
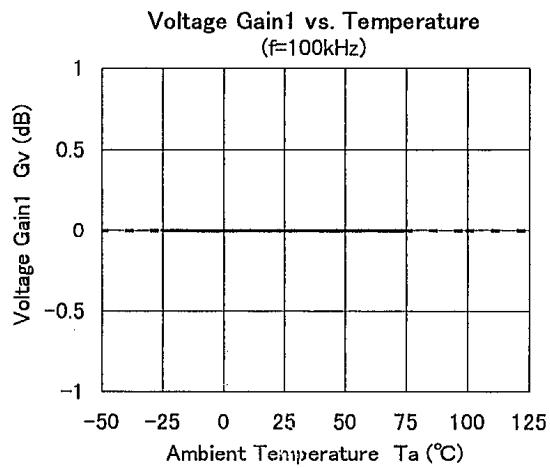
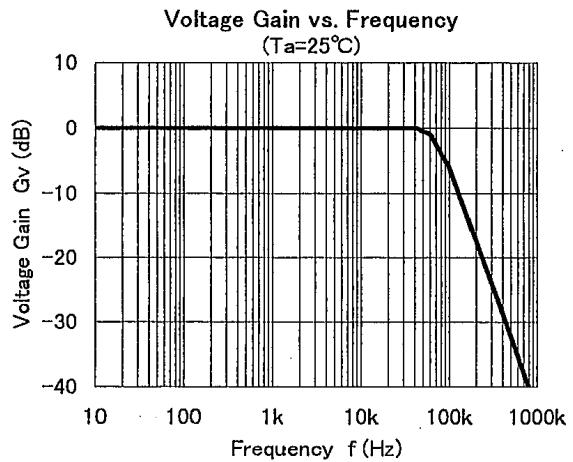
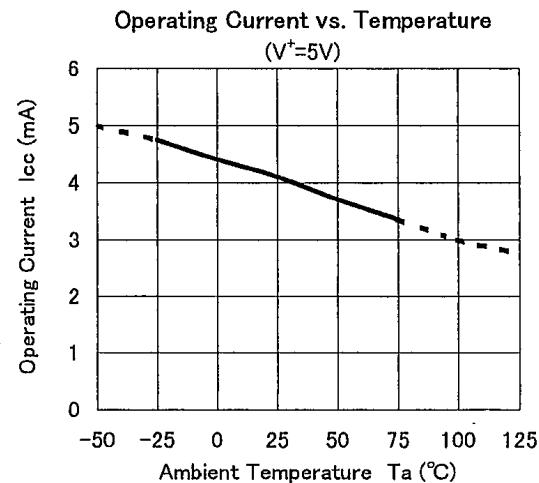
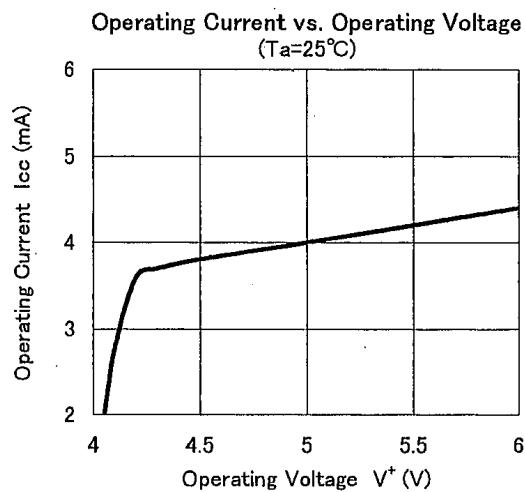
■ APPLICATION CIRCUIT



■ POWER ON TIMING CHART

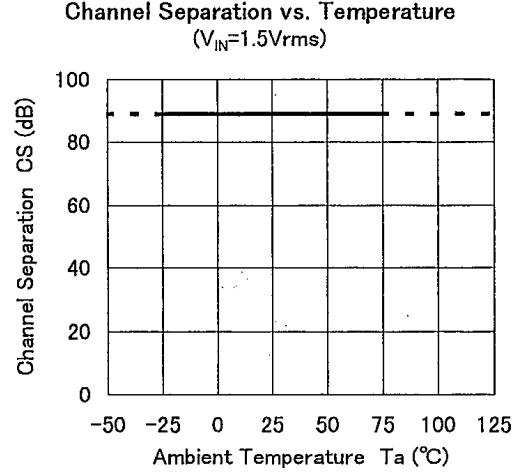
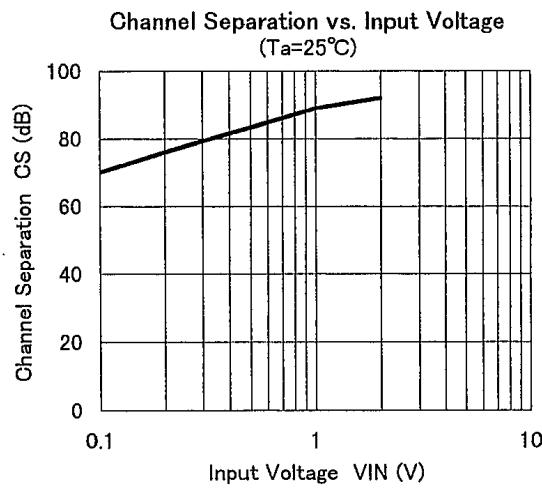
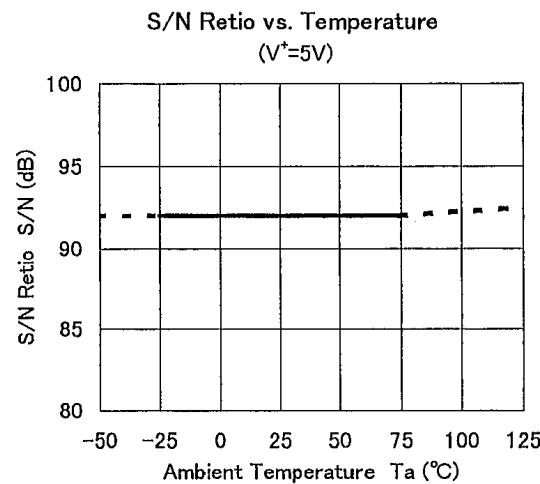
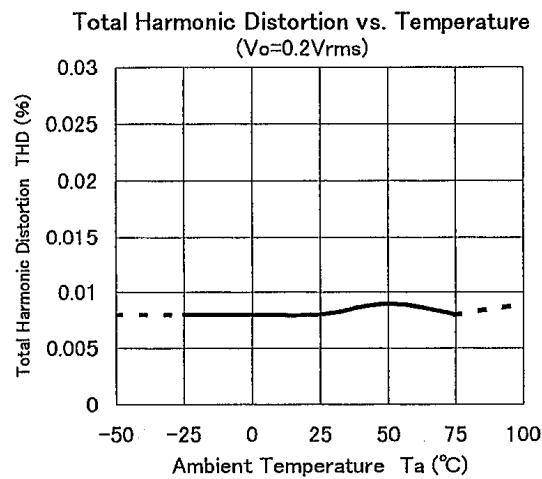
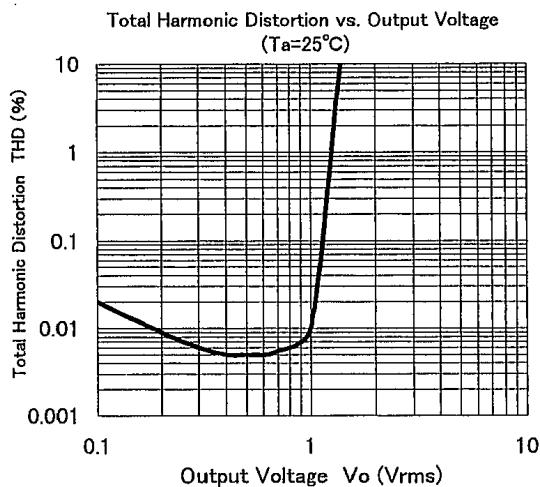
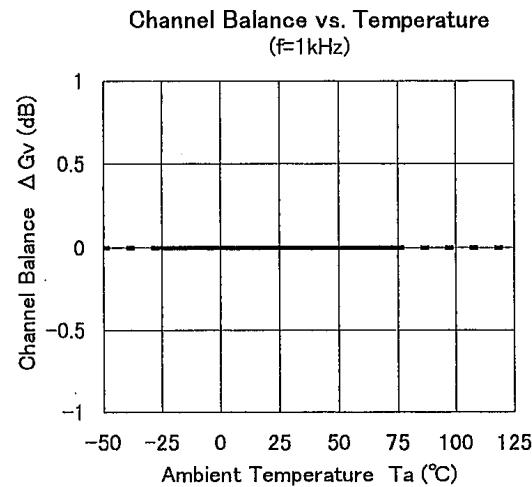


■ TYPICAL CHARACTERISTICS



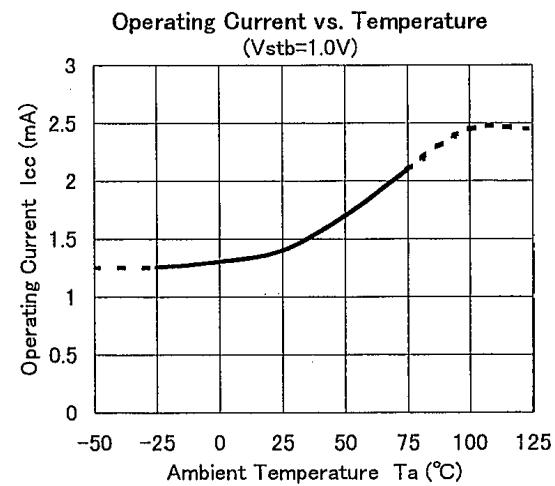
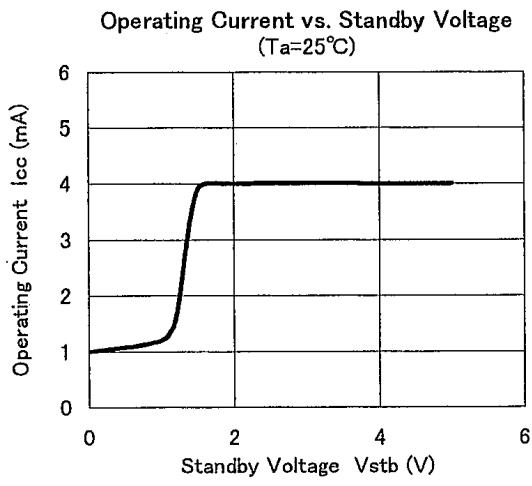
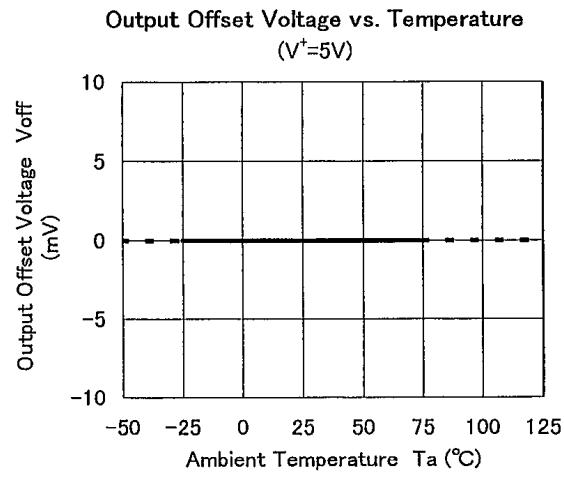
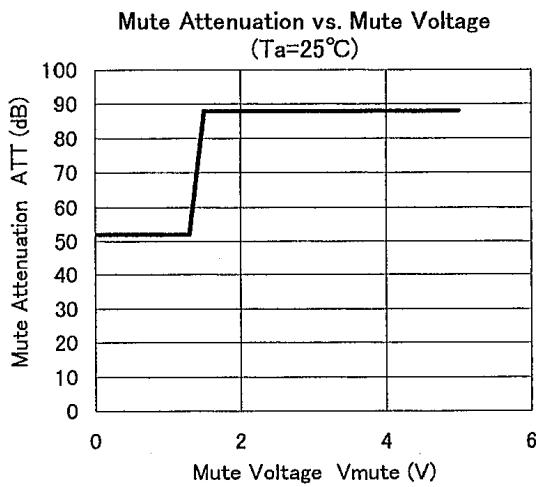
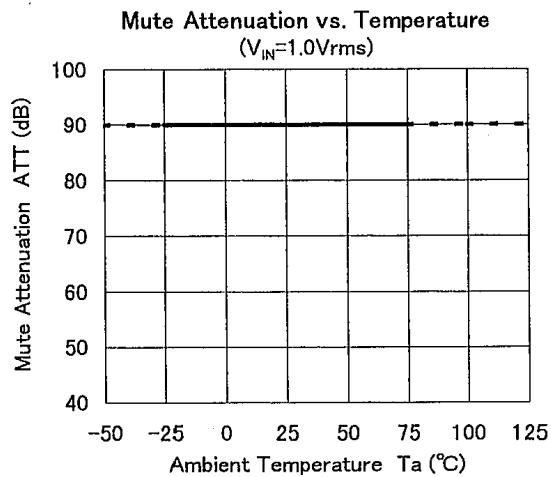
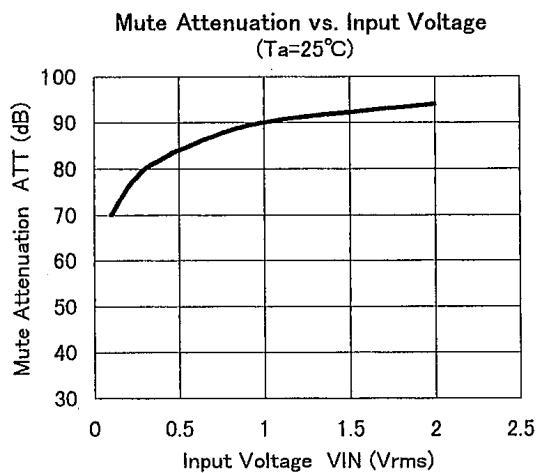
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■ TYPICAL CHARACTERISTICS



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■ TYPICAL CHARACTERISTICS



MEMO

[CAUTION]
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