

## 3V AUTO-REVERSE DUAL PRE-AMPLIFIER

## ■ GENERAL DESCRIPTION

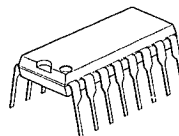
NJM2067 is dual pre-amplifier including channel switch which was designed for 3V Auto-reverse Head Phone Stereo.

## ■ PACKAGE OUTLINE

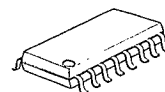
## ■ FEATURES

- Internal Switch of Input Channel
- Package Outline
- Bipolar Technology

DIP16, DMP16

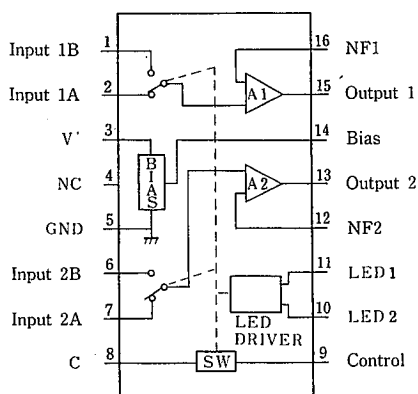


NJM2067D



NJM2067M

## ■ PIN CONFIGURATION

NJM2067D  
NJM2067M

## ■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

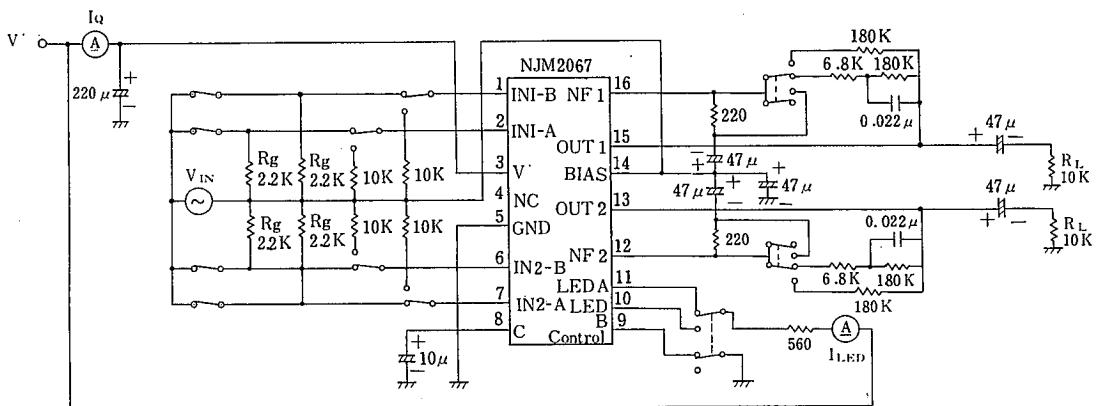
PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup>	4.5	V
Power Dissipation	P <sub>D</sub>	(DIP16) 700 (DMP16) 350	mW
Operating Temperature Range	T <sub>opr</sub>	-20 ~ +75	°C
Storage Temperature Range	T <sub>stg</sub>	-40 ~ +125	°C

## ■ ELECTRICAL CHARACTERISTICS

(Ta=25°C, V<sup>+</sup>=3V, R<sub>L</sub>=10kΩ)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Current	I <sub>CC</sub>	V <sub>IN</sub> =0V	0.9	2.3	4.0	mA
Open Loop Voltage Gain	G <sub>V</sub>	V <sub>O</sub> =-10dBm, f=1kHz	70	80	—	dB
Equivalent Input Noise Voltage	V <sub>NI</sub>	V <sub>IN</sub> =0, R <sub>E</sub> =2.2kΩ	—	1.2	—	μVrms
Maximum Output Voltage	V <sub>OM</sub>	THD=1%, f=1kHz	250	450	—	mVrms
Crosstalk between Channels	CST	Other channels V <sub>O</sub> =-10dBm, f=1kHz	55	65	—	dB
Crosstalk between A and B Channel	CT	Other channels V <sub>O</sub> =-10dBm, f=1kHz	55	65	—	dB
Total harmonic Distortion	THD	V <sub>O</sub> =0.2Vrms, f=1kHz	—	0.08	0.15	%
Input Bias Current	I <sub>B</sub>	V <sub>IN</sub> =0Vrms	—	100	310	nA
Maximum LED Current	I <sub>LED</sub>		—	5	—	mA

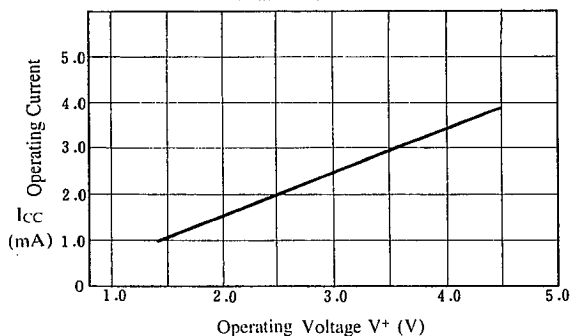
## ■ TEST CIRCUIT



## ■ TYPICAL CHARACTERISTICS

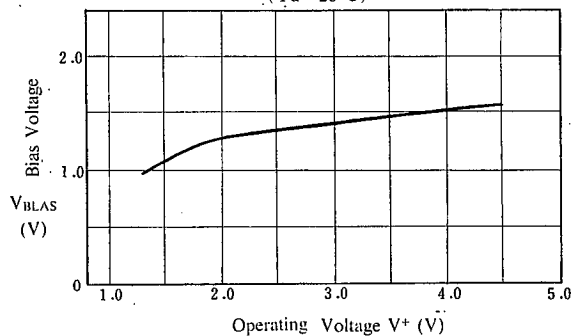
**Operating Current  
vs. Operating Voltage**

( $V_{IN}=0V$ ,  $T_a=25^\circ C$ )



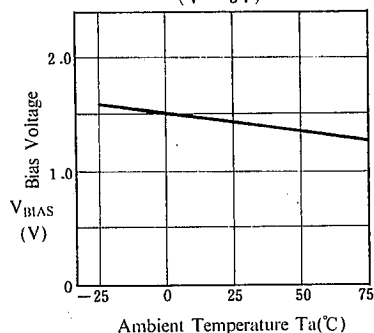
**Bias Voltage  
vs. Operating Voltage**

( $T_a=25^\circ C$ )



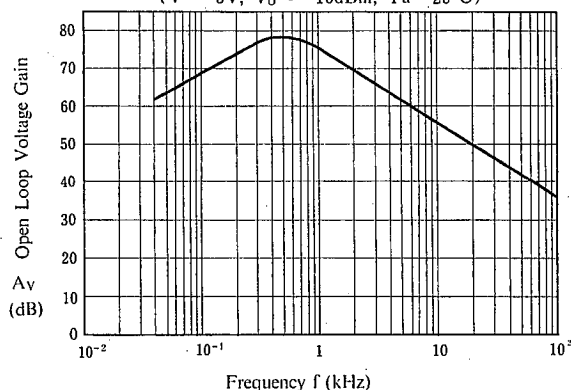
**Bias Voltage  
vs. Ambient Temperature**

( $V^+=3V$ )



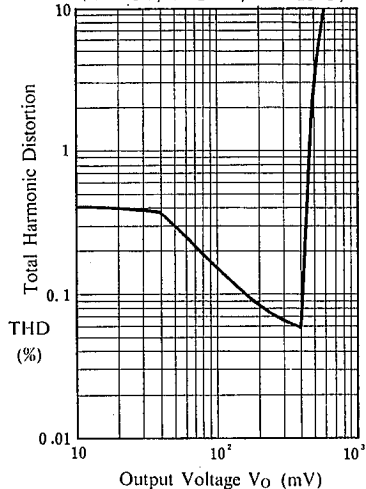
**Open Loop Voltage Gain  
vs. Frequency**

( $V^+=3V$ ,  $V_o=-10dBm$ ,  $T_a=25^\circ C$ )



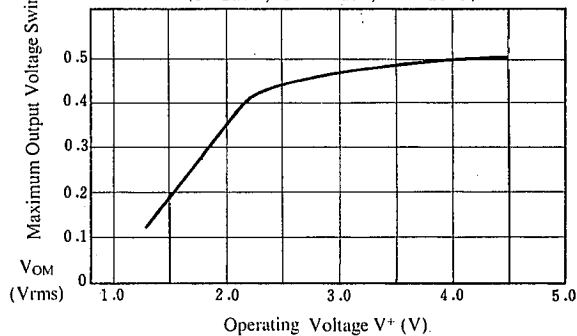
**Total Harmonic Distortion  
vs. Output Voltage**

( $V^+=3V$ ,  $f=1kHz$ ,  $T_a=25^\circ C$ )



**Maximum Output Voltage Swing  
vs. Operating Voltage**

( $f=1kHz$ ,  $THD=1\%$ ,  $T_a=25^\circ C$ )



## MEMO

**[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.