

3V AUTO-REVERSE DUAL PRE-AMPLIFIER

■ GENERAL DESCRIPTION

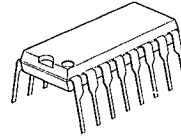
NJM2067 is dual pre-amplifier including channel switch which was designed for 3V Auto-reverse Head Phone Stereo.

■ PACKAGE OUTLINE

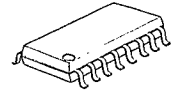
■ FEATURES

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

DIP16, DMP16

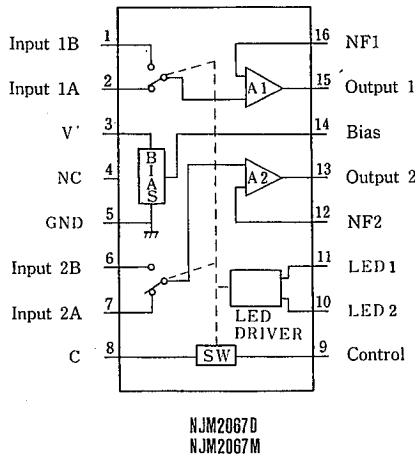


NJM2067D



NJM2067M

■ PIN CONFIGURATION



NJM2067D  
NJM2067M

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

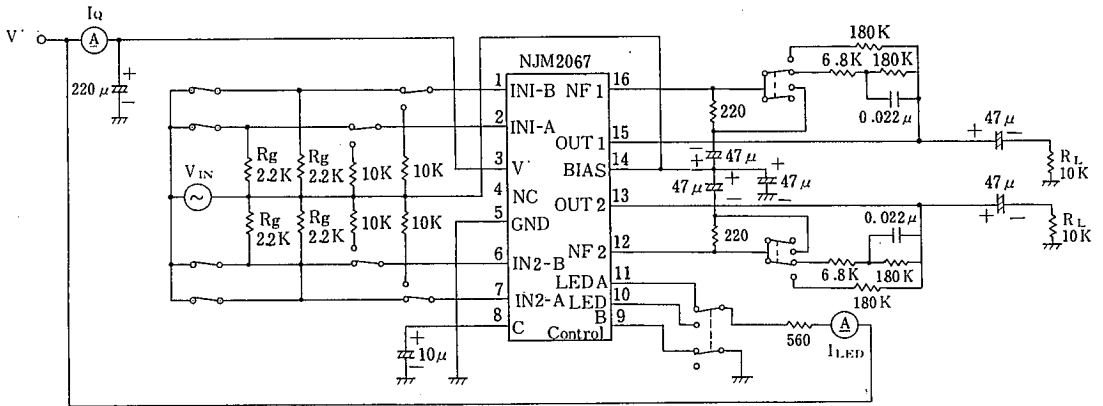
PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V+	4.5	V
Power Dissipation	P <sub>D</sub>	(DIP16) 700 (DMP16) 350	mW
Operating Temperature Range	T <sub>opr</sub>	-20~+75	°C
Storage Temperature Range	T <sub>stg</sub>	-40~+125	°C

■ ELECTRICAL CHARACTERISTICS

(Ta=25°C, V+=3V, R<sub>L</sub>=10kΩ)

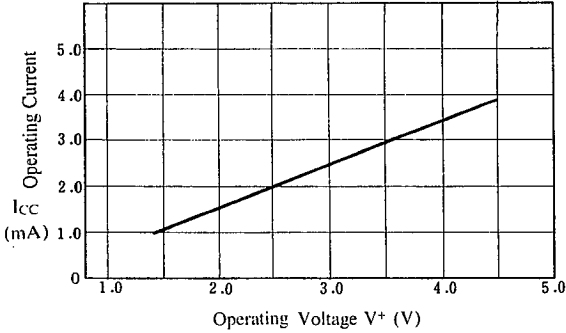
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Current	I <sub>CC</sub>	V <sub>IN</sub> =0V	0.9	2.3	4.0	mA
Open Loop Voltage Gain	G <sub>V</sub>	V <sub>O</sub> =-10dBm, f=1kHz	70	80	—	dB
Equivalent Input Noise Voltage	V <sub>NI</sub>	V <sub>IN</sub> =0, R <sub>e</sub> =2.2kΩ	—	1.2	—	μVrms
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

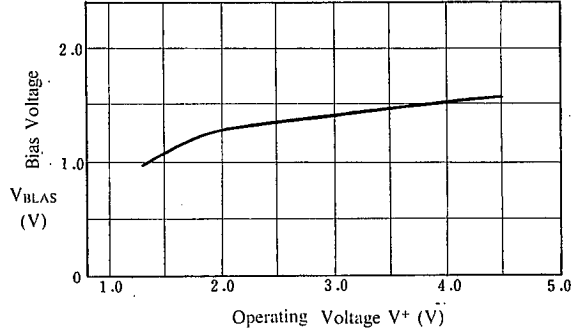


## ■ TYPICAL CHARACTERISTICS

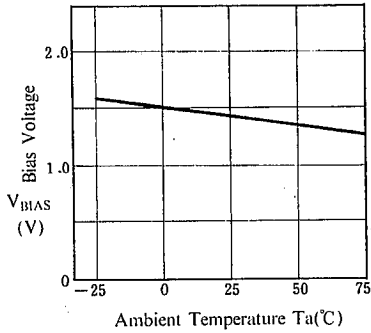
**Operating Current vs. Operating Voltage**  
( $V_{IN}=0V, T_a=25^\circ C$ )



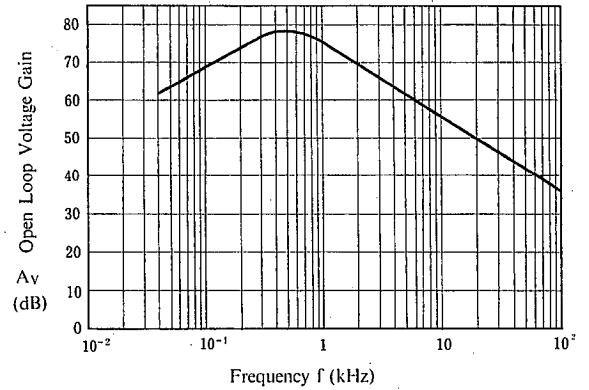
**Bias Voltage vs. Operating Voltage**  
( $T_a=25^\circ C$ )



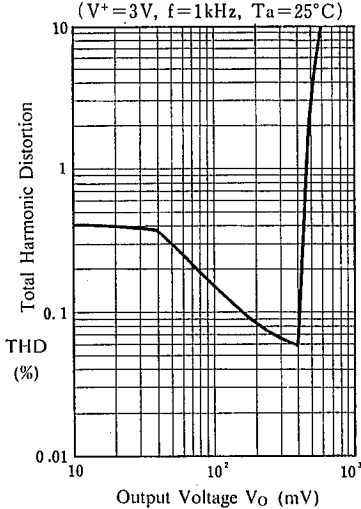
**Bias Voltage vs. Ambient Temperature**  
( $V^+=3V$ )



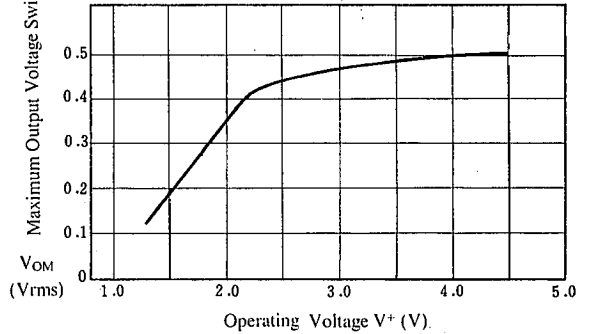
**Open Loop Voltage Gain vs. Frequency**  
( $V^+=3V, V_o=-10dBm, T_a=25^\circ C$ )



**Total Harmonic Distortion vs. Output Voltage**  
( $V^+=3V, f=1kHz, T_a=25^\circ C$ )



**Maximum Output Voltage Swing vs. Operating Voltage**  
( $f=1kHz, THD=1%, T_a=25^\circ C$ )



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## MEMO

**[CAUTION]**

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