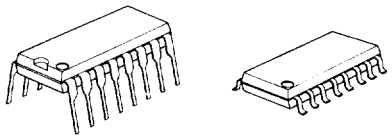
3V AUTO-REVERSE DUAL PRE-AMPLIFIER

■ GENERAL DESCRIPTION

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

■ PACKAGE OUTLINE

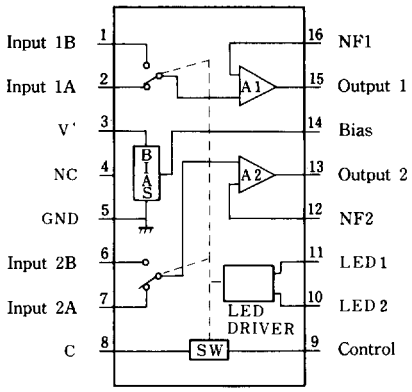


NJM2067D NJM2067M

■ FEATURES

- Internal Switch of Input Channel
- Package Outline DIP16, DMP16
- Bipolar Technology

■ PIN CONFIGURATION



NJM2067D
NJM2067M

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

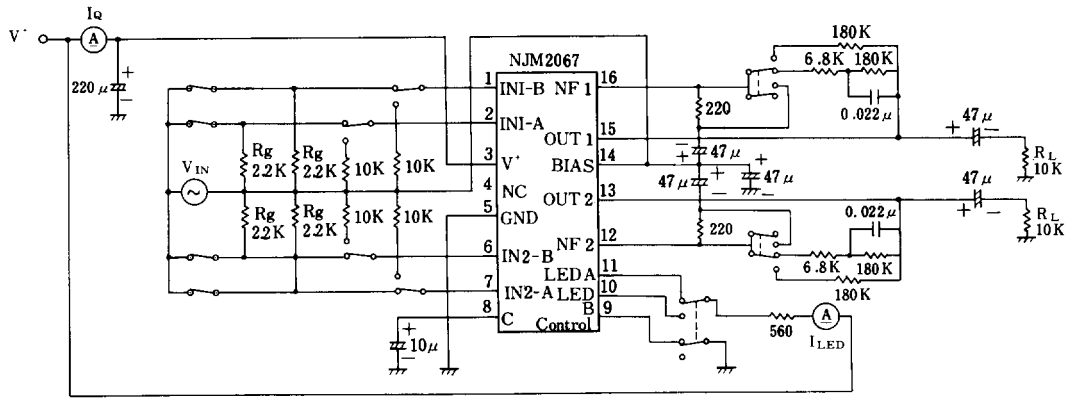
PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+	4.5	V
Power Dissipation	P_D	(DIP16) 700	mW
		(DMP16) 350	mW
Operating Temperature Range	T_{opr}	−20~+75	℃
Storage Temperature Range	T_{stg}	−40~+125	℃

■ ELECTRICAL CHARACTERISTICS

(Ta=25℃, V^+=3V, R_L=10kΩ)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Current	I_{CC}	V_{IN}=0V	0.9	2.3	4.0	mA
Open Loop Voltage Gain	G_V	V_O=−10dBm, f=1kHz	70	80	—	dB
Equivalent Input Noise Voltage	V_{NI}	V_{IN}=0, R_g=2.2kΩ	—	1.2	—	μVrms
Maximum Output Voltage	V_{OM}	THD=1%, f=1kHz	250	450	—	mVrms
Crosstalk between Channels	CST	Other channels V_O=−10dBm, f=1kHz	55	65	—	dB
Crosstalk between A and B Channel	CT	Other chanels V_O=−10dBm, f=1kHz	55	65	—	dB
Total harmonic Distortion	THD	V_O=0.2Vrms, f=1kHz	—	0.08	0.15	%
Input Bias Current	I_B	V_{IN}=0Vrms	—	100	310	nA
Maximum LED Current	I_{LED}		—	5	—	mA

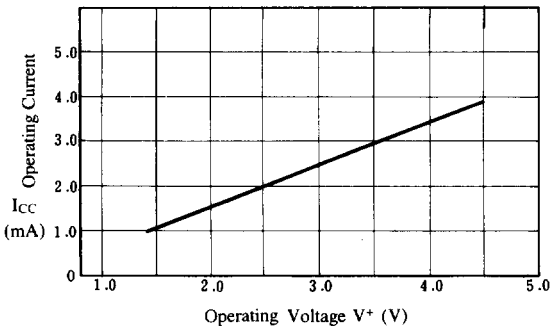
■ TEST CIRCUIT



■ TYPICAL CHARACTERISTICS

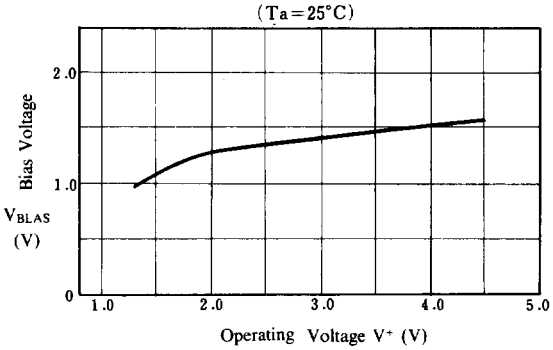
Operating Current vs. Operating Voltage

(V_{IN}=0V, Ta=25°C)



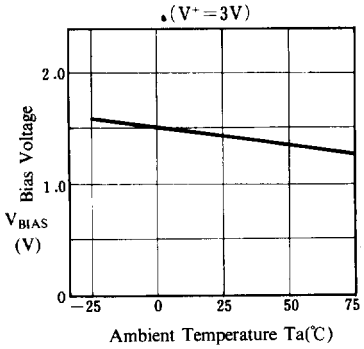
Bias Voltage vs. Operating Voltage

(Ta=25°C)



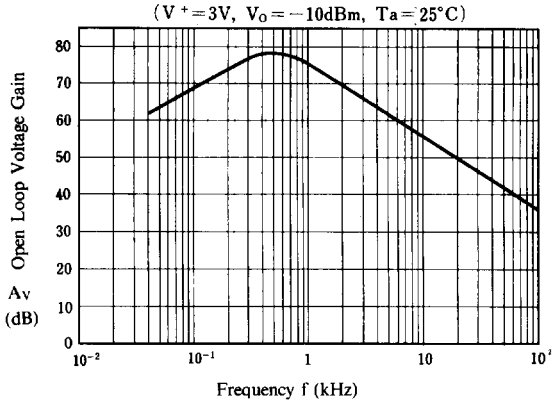
Bias Voltage vs. Ambient Temperature

(V⁺=3V)



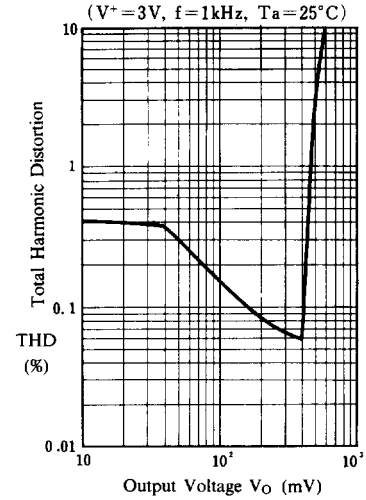
Open Loop Voltage Gain vs. Frequency

(V^+=3V, V_O=−10dBm, Ta=25°C)



Total Harmonic Distortion vs. Output Voltage

(V^+=3V, f=1kHz, Ta=25°C)



Maximum Output Voltage Swing vs. Operating Voltage

(f=1kHz, THD=1%, Ta=25°C)