

MONAURAL MICROPHONE AMPLIFIER

■ GENERAL DESCRIPTION

The NJM2118 is a monaural microphone amplifier with current limit.

The low operating current and 3V or 5V operation are easy apply to portable items such as camcorder, microphone module and others.

The very small package of SSOP8 makes downsized PCB design.

■ PACKAGE OUTLINE



NJM2118M

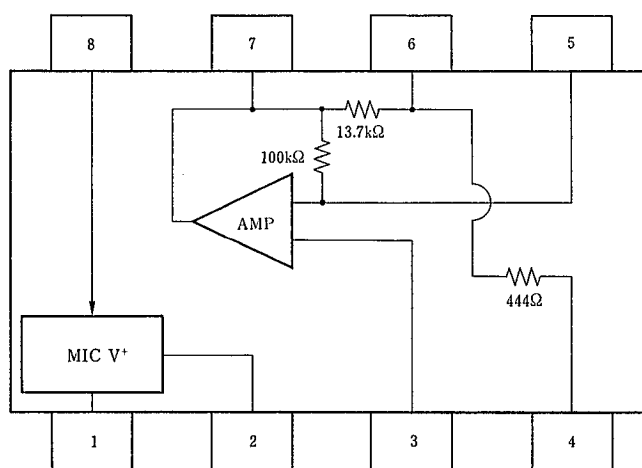


NJM2118V

■ FEATURES

- Operating Voltage (+2.7V ~ +5.3V)
- Low Operating Current (1.0mA typ.)
- Low Noise ($30 \mu\text{Vrms typ.}$)
- Bipolar Technology
- Package Outline DMP8, SSOP8

■ PIN CONFIGURATION



NJM2118M
NJM2118V

PIN FUNCTION

- 1 : MIC V⁺
- 2 : C-NOISE
- 3 : +V_{IN}
- 4 : GND
- 5 : -V_{IN}
- 6 : AMP NFB
- 7 : AMP OUT
- 8 : V⁺

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

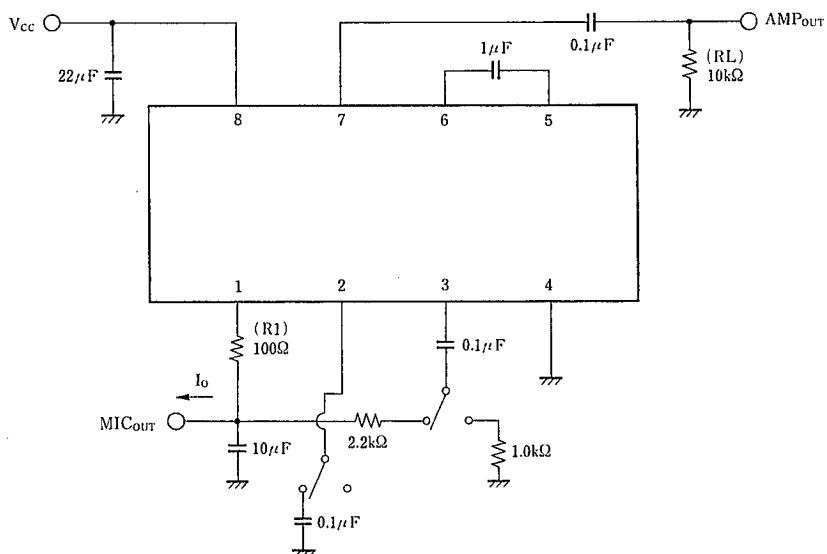
PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺	+7	V
Power Dissipation	P _D	(SSOP8) 250 (DMP8) 300	mW
Operating Temperature Range	T _{opr}	-20~+75	°C
Storage Temperature Range	T _{slg}	-40~+125	°C

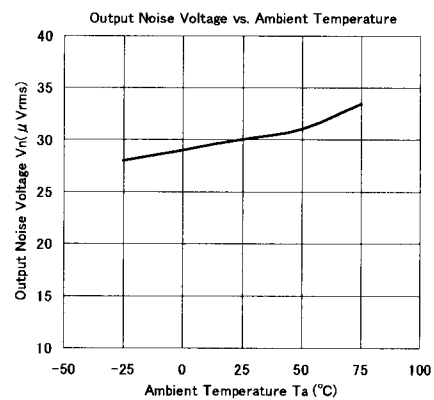
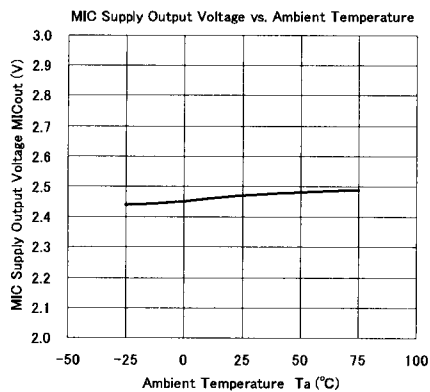
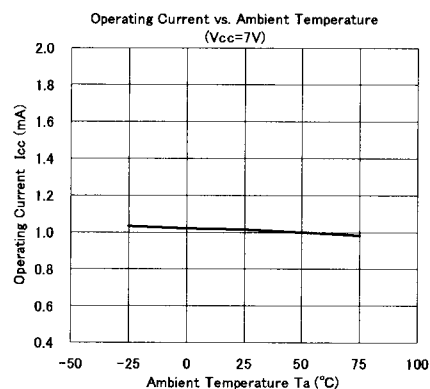
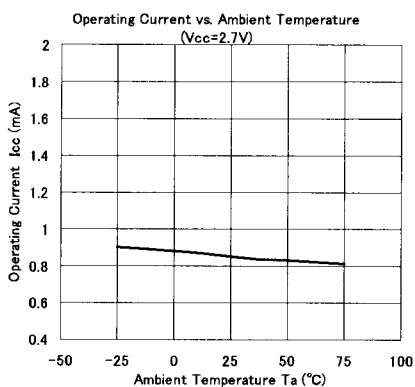
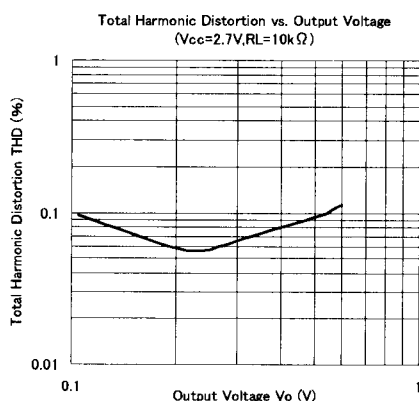
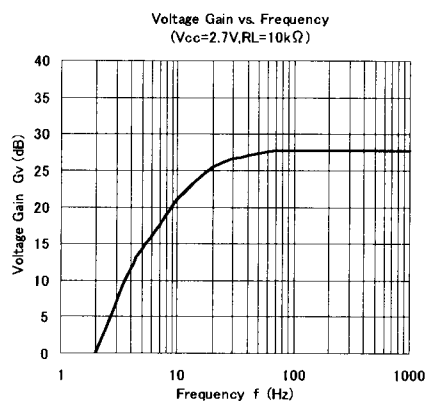
■ ELECTRICAL CHARACTERISTICS

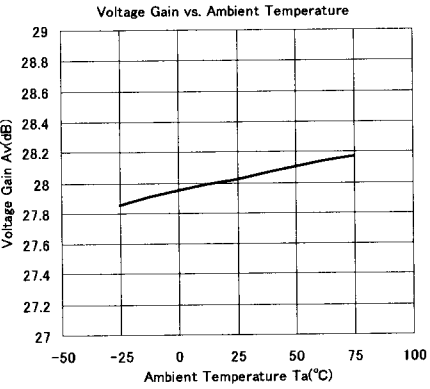
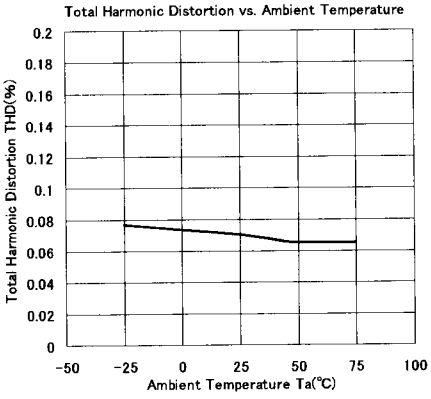
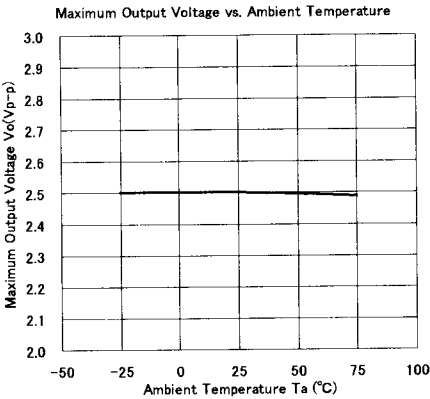
(V⁺=5V, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V ⁺		+2.7	—	+5.3	V
Operating Current	I _{cc}		—	1	2	mA
Voltage Gain	G _V	f=1kHz	27	28	29	dB
Total Harmonic Distortion	THD	f=1kHz, V _o =300mVrms, R _L =10kΩ	—	0.05	0.5	%
Maximum Output Voltage	V _{om}	f=1kHz, THD=1%, R _L =10kΩ	2.0	2.5	—	V _{pp}
Output Noise Voltage 1	V _{n1}	R _L =100Ω, I _o =2.5mA, Weight JIS-A	—	30	35	μVrms
Output Noise Voltage 2	V _{n2}	R _g =1kΩ, Weight JIS-A	—	20	42	μVrms
Input Impedance	R _{in}	f=1kHz	—	110	—	kΩ
Output Impedance	R _o	f=1kHz	—	18	—	Ω
Mic Output Supply Voltage 1	MI Cout1	I _o =0mA	2.0	2.45	—	V
Mic Output Supply Voltage 2	MI Cout2	I _o =2.5mA, R _L =100Ω	2.0	2.15	—	V

■ TEST CIRCUIT







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.