

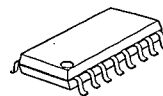
PRE & POWER AMPLIFIER WITH ALC

■ GENERAL DESCRIPTION

NJM2128 is a pre & power amplifier with ALC for micro and compact cassette recorders. It contains pre-amplifier, ALC circuit, power amplifiers, and ripple filter.

The pre-amplifier amplifies the signal come from magnetic head. The ALC circuit limits the input signal to optimize level in recording. The power amplifiers drive a speaker in play back and the magnetic head in recording. The ripple filter stabilizing the supply voltage to the internal pre-amplifier and an external condenser microphone.

■ PACKAGE OUTLINE

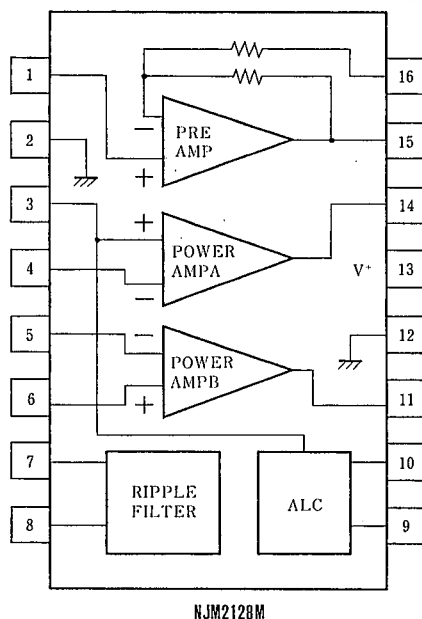


NJM2128M

■ FEATURES

- Operating Voltage 1.8V ~ 6.0V
- Automatic Level Control (ALC) Limit Level=100mVrms typ.(f=1kHz)
- Ripple Filter R.R. (Ripple Rejection)=47dB typ.(f=200Hz, C=47 μ F)
- Bipolar Technology
- Package Outline DMP16

■ PIN CONFIGURATION



NJM2128M

PIN FUNCTION

1. PRE+IN
2. SGND
3. POWER+INA
4. POWER-INA
5. POWER+INB
6. POWER+INB
7. RFOUT
8. RFIN
9. ALCIN
10. TC
11. POWER OUT B
12. POWER GND
13. V+
14. POWER OUT A
15. PREOUT
16. PRE-IN

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V*	+7.0	V
PA Output Peak Current	I _{op}	1	A
PA Input Voltage Range	V _{IN}	±0.4	V
Power Dissipation	P _D	(DMP16) 300	mW
Operating Temperature Range	T _{opr}	-20 ~ +75	°C
Storage Temperature Range	T _{stg}	-40 ~ +125	°C

■ ELECTRICAL CHARACTERISTICS

(V*=3V, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V*		1.8	3.0	6.0	V
Operating Current	I _{CC}	R _L =∞	—	9	14	mA

Power Amp

Input Bias Current	I _B		—	140	—	nA
Output Offset	ΔV _O	R _L =8Ω	—	0	50	mV
Output Power	P _O	THD=10%, f=1kHz, V*=4V, R _L =8Ω	300	400	—	mW
(Note 1)	P _O	THD=10%, f=1kHz, V*=3V, R _L =4Ω	150	220	—	mW
T.H.D.	THD	V*=4V, R _L =8Ω, P _O =200mW, f=1kHz	—	0.2	—	%
Close Loop V-Gain	A _{VL}	f=1kHz	41	44	47	dB
Equivalent Input Noise Voltage	V _{N1}	R _S =10kΩ, R _L =4Ω, A curve.	—	2	—	μVrms
	V _{N2}	R _S =10kΩ, R _L =4Ω, BW=22Hz ~ 22kHz	—	2.5	—	μVrms
Ripple Rejection	RR	f=100Hz	—	47	—	dB
Cut off Frequency	f _{IL}	A _V =-3dB from f=1kHz, R _L =4Ω, P _O =0.1W	—	80	—	kHz

Pre Amp

Output Voltage	V _O	f=1kHz, THD=1%	0.1	0.2	—	Vrms
Voltage Gain	A _V	f=1kHz	35	38	41	dB
Output Noise Voltage	V _{NO}	R _S =3.3kΩ	—	0.1	0.4	mVrms

ALC

Limit Level	ALC	f=1kHz	100	200	300	mVrms
-------------	-----	--------	-----	-----	-----	-------

Ripple Filter

Output Voltage	V _O	R _L =2kΩ	V*-0.24	V*-0.2	V*-0.16	V
Ripple Rejection	RR	f=200Hz, C=47 μF	40	47	54	dB

(Note 1) at on PC Board

■ TYPICAL APPLICATIONS



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.