

QUAD J-FET INPUT OPERATIONAL AMPLIFIER

■ GENERAL DESCRIPTION

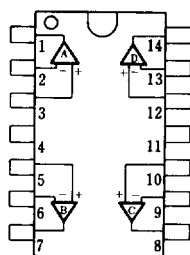
The NJM074/084 are quad JFET input operational amplifiers.

The NJM074/084 have the same electrical characteristics of NJM072B/082B except supply current.

■ FEATURES

- Operating Voltage ($\pm 4V \sim \pm 18V$)
- J-FET Input
- High Input Resistance ($10^{12} \Omega$ typ.)
- Low Input Bias Current (30pA typ.)
- High Slew Rate (13V/ μ s typ.)
- Wide Unity Gain Bandwidth (3MHz typ.)
- Package Outline DIP14, DMP14, SSOP14
- Bipolar Technology

■ PIN CONFIGURATION

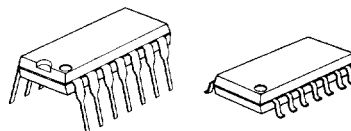


NJM074D/084D
NJM074M/084M
NJM074V/084V

PIN FUNCTION

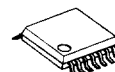
1. A OUTPUT
2. A -INPUT
3. A +INPUT
4. V^+
5. B +INPUT
6. B -INPUT
7. B OUTPUT
8. C OUTPUT
9. C -INPUT
10. C +INPUT
11. V^-
12. D +INPUT
13. D -INPUT
14. D OUTPUT

■ PACKAGE OUTLINE



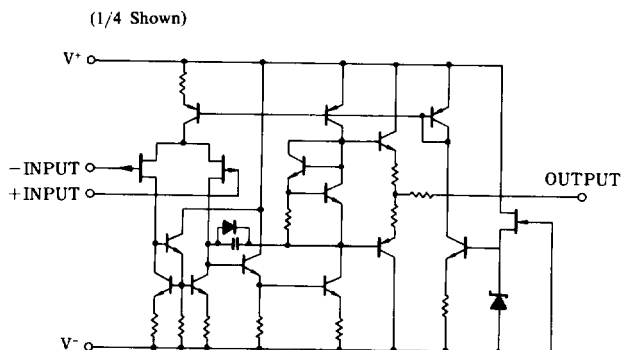
NJM074D
NJM084D

NJM074M
NJM084M



NJM074V
NJM084V

■ EQUIVALENT CIRCUIT





■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺ /V ⁻	±18	V
Differential Input Voltage	V _{ID}	±30	V
Input Voltage	V _{IC}	±15(note 1)	V
Power Dissipation	P _D	(DIP14) 700	mW
		(DMP14) 700(note 2)	mW
		(SSOP14) 300	mW
Operating Temperature Range	T _{opr}	-20~+75	°C
Storage Temperature Range	T _{stg}	-40~+125	°C

(note 1) For supply voltage less than ±15V, the absolute maximum input voltage is equal to the supply voltage.

(note 2) at on PC board

■ ELECTRICAL CHARACTERISTICS (Ta=+25°C, V⁺/V⁻=±15V)

() Applies to NJM084

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V _{IO}	R _S =50Ω	—	3(5)	10(15)	mV
Input Offset Current	I _{IO}		—	5	50(200)	pA
Input Bias Current	I _B		—	30	200(400)	pA
Input Common Mode Voltage Range	V _{ICM}		±10	—	—	V
Maximum Peak-to-peak Output Voltage Swing	V _{OPP}	R _L =10kΩ	24	27	—	V _{p-p}
Large-Signal Voltage Gain	A _V	R _L ≥2kΩ, V _O =±10V	88	106	—	dB
Unity Gain Bandwidth	f _T		—	3	—	MHz
Input Resistance	R _{IN}		—	10 ¹²	—	Ω
Common Mode Rejection Ratio	CMR	R _S ≤10kΩ	70	76	—	dB
Supply Voltage Rejection Ratio	SVR	R _S ≤10kΩ	70	76	—	dB
Operating Current	I _{CC}		—	6	10(11.2)	mA
Slew Rate	SR		—	13	—	V/μs
Equivalent Input Noise Voltage	V _{NI}	R _S =100Ω, B.W.=10~10kHz	—	4	—	μVrms