

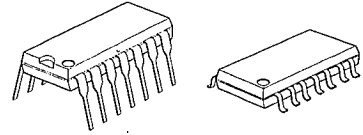
QUAD J-FET INPUT OPERATIONAL AMPLIFIER

■ GENERAL DESCRIPTION

The NJM074/084 are quad JFET input operational amplifiers.

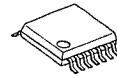
The NJM074/084 have the same electrical characteristics of NJM072B/082B except supply current.

■ PACKAGE OUTLINE



NJM074D  
NJM084D

NJM074M  
NJM084M

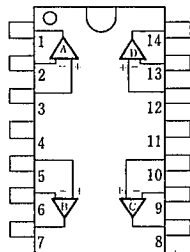


NJM074V  
NJM084V

■ FEATURES

- Operating Voltage (±4V ~ ±18V)
- J-FET Input
- High Input Resistance (10<sup>12</sup> Ω typ.)
- Low Input Bias Current (30pA typ.)
- High Slew Rate (13V/μs typ.)
- Wide Unity Gain Bandwidth (3MHz typ.)
- Package Outline DIP14, DMP14, SSOP14
- Bipolar Technology

■ PIN CONFIGURATION

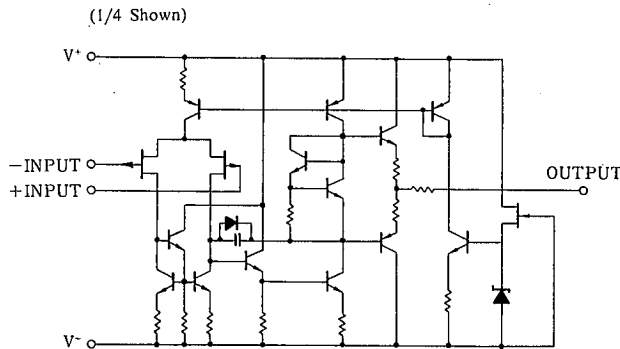


NJM074D/084D  
NJM074M/084M  
NJM074V/084V

PIN FUNCTION

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

■ EQUIVALENT CIRCUIT



## ■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup> /V <sup>-</sup>	±18	V
Differential Input Voltage	V <sub>IO</sub>	±30	V
Input Voltage	V <sub>IC</sub>	±15(note 1)	V
Power Dissipation	P <sub>D</sub>	(DIP14) 700	mW
		(DMP14) 700(note 2)	mW
		(SSOP14) 300	mW
Operating Temperature Range	T <sub>opr</sub>	-20~+75	°C
Storage Temperature Range	T <sub>stg</sub>	-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<sup>+</sup>/V<sup>-</sup>=±15V)

( ) Applies to NJM084

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

## MEMO

[CAUTION]

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