QUAD J-FET INPUT OPERATIONAL AMPLIFIER

■ GENERAL DESCRIPTION

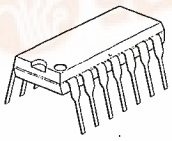
The NJM074/084 are quad JFET input operational amplifiers.

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

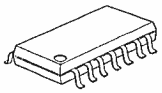
■ FEATURES

- Operating Voltage (±4V～±18V)
- J-FET Input
- High Input Resistarce ($10^{12}\Omega$ 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

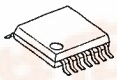
■ PACKAGE OUTLINE



NJM074D
NJM084D

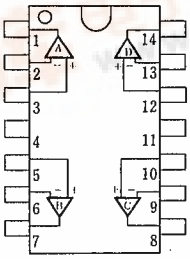


NJM074M
NJM084M



NJM074V
NJM084V

■ PIN CONFIGURATION

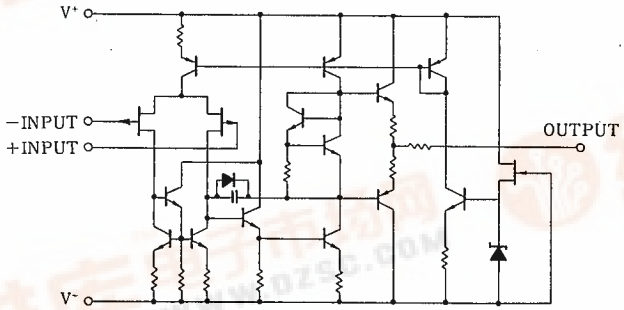


NJM074D/084D
NJM074M/084M
NJM074V/084V

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

■ EQUIVALENT CIRCUIT

(1/4 Shown)



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

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	℃
Storage Temperature Range	T_{stg}	−40~+125	℃

(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℃, 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

MEMO