

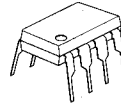
NJM3415

The NJM3415 integrated circuit is a high gain, high output current, high output voltage swing dual operational amplifier capable of driving 70mA.

Package Outline

Absolute Maximum Ratings (Ta=25°C)

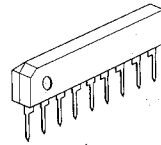
| | | |
|-----------------------------|---------------------------|----------------|
| Supply Voltage | V ⁺ | 15V (or ±7.5V) |
| Differential Input Voltage | V _{ID} | 15V |
| Input Voltage | V _I | -0.3~15V |
| Power Dissipation | P _D (D,S-Type) | 500mW |
| | (M,E-Type) | 300mW |
| Operating Temperature Range | T _{opr} | -20~+75°C |
| Storage Temperature Range | T _{stg} | -40~+125°C |



NJM3415D



NJM3415M
NJM3415E

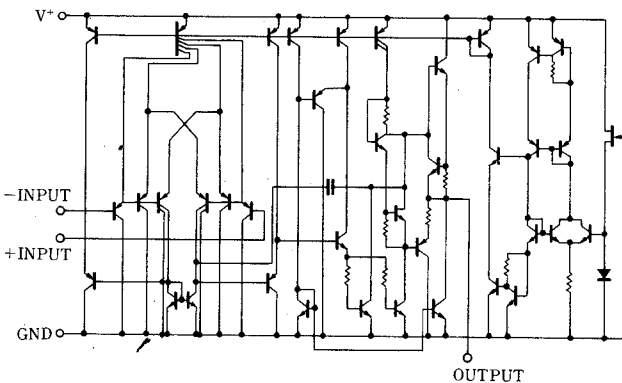


NJM3415S

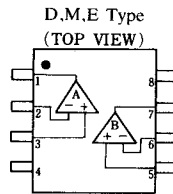
Electrical Characteristics (Ta=25°C, V⁺=8.6V)

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---------------------------------|--------------------|--|-------------------|------|------|------|
| Input Offset Voltage | V _{IO} | R _S =0Ω | — | 2 | 5 | mV |
| Input Offset Current | I _{IO} | | — | ±30 | ±100 | nA |
| Input Bias Current | I _{IB} | | — | 100 | 500 | nA |
| Large Signal Voltage Gain | A _V | R _L =2kΩ | 25 | 100 | — | V/mA |
| Input Common Mode Voltage Range | V _{ICM} | | V ⁺ -2 | — | — | V |
| Maximum Output Voltage Swing I | V _{OM I} | R _L ≥2kΩ, V ⁺ =5V | 3.5 | — | — | V |
| Maximum Output Voltage Swing II | V _{OM II} | I _O =70mA, V ⁺ =5V | 3.2 | — | — | V |
| Common Mode Rejection Ratio | CMR | | 80 | 90 | — | dB |
| Supply Voltage Rejection Ratio | SVR | | 80 | 90 | — | dB |
| Quiescent Current | I _Q | R _L =∞ | 4.5 | 5.5 | 7.0 | mA |
| Slew Rate | SR | A _V =1 | — | 1.0 | — | V/μS |
| Unity Gain Bandwidth | f _T | | — | 1.3 | — | MHz |
| Operating Voltage Range | V ⁺ | | — | — | 10 | V |

Equivalent Circuit (1/2 Shown)

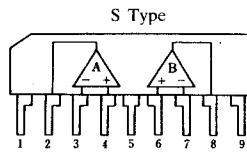


Connection Diagrams



PIN FUNCTION

1. OUTPUT
2. A-INPUT
3. A+INPUT
4. GND
5. B+INPUT
6. B-INPUT
7. B OUTPUT
8. V⁺



PIN FUNCTION

1. V⁺
2. A OUTPUT
3. A-INPUT
4. A+INPUT
5. GND
6. B+INPUT
7. B-INPUT
8. B OUTPUT
9. V⁺