# AN7062N

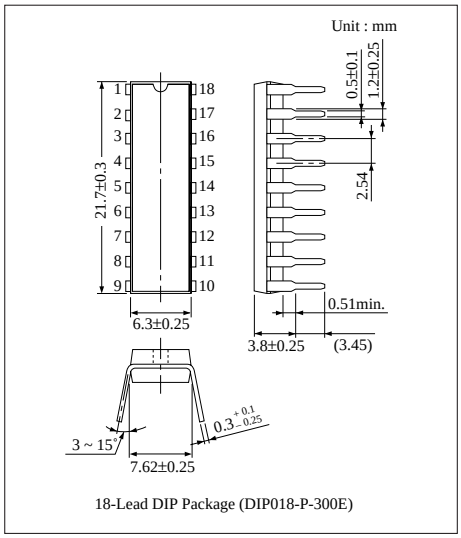
## High Voltage Input Amplifier Circuit for Hi-Fi Power Amplifier

### ■ Overview

The AN7062N is a high voltage integrated circuit designed for pre-driver of 60W-class Hi-Fi audio amp. Stereo operation is enabled due to two amplifiers built-in.

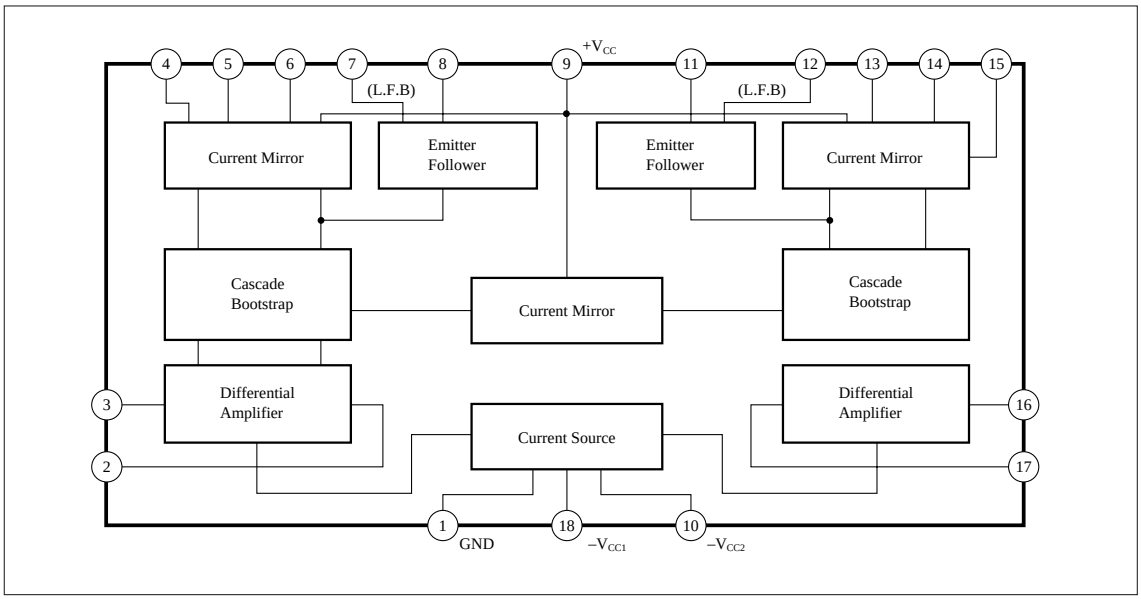
### ■ Features

- High voltage
- Low noise : $V_{ni}$ = 2.5μV (typ.)
- Low distortion : THD = 0.003% (typ.)
- Good channel separation
- Wide operating supply voltage range




18-Lead DIP Package (DIP018-P-300E)

### ■ Block Diagram



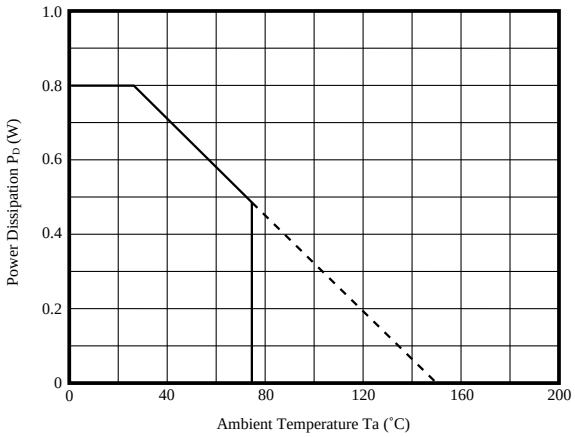
## ■ Absolute Maximum Ratings (Ta= 25˚C)

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Supply Voltage | $+V_{CC}$ | + 74 | V |
| Supply Voltage | $-V_{CC}$ | – 16 | V |
| Supply Current | $I_{CC}$ | 10 | mA |
| Power Dissipation | $P_D$ | 800 | mW |
| Operating Ambient Temperature | $T_{opr}$ | – 25 ~ + 75 | ˚C |
| Storage Temperature | $T_{stg}$ | – 55 ~ + 150 | ˚C |

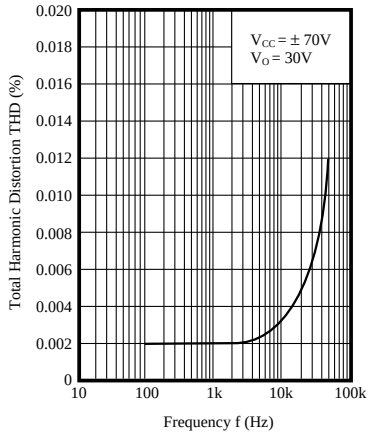
## ■ Electrical Characteristics ($V_{CC}$ = ± 70V, f = 20kHz, Ta= 25˚C)

| Parameter | Symbol | Condition | min. | typ. | max. | Unit |
|---|---|---|---|---|---|---|
| Plus Side Supply Current | $I_{tot-1}$ | $V_i$ = 0mV | 2.5 | 5 | 7.5 | mA |
| Minus Side Supply Current | $I_{tot-2}$ | $V_i$ = 0mV | 1.5 | 2.8 | 4.5 | mA |
| Output Noise Voltage | $V_{no1}$ | $V_i$ = 0mV, $R_g$ = 0Ω, DIN – A Filter, f = 20Hz ~ 20kHz, –12dB/OCT | — | 0.14 | 1 | mV |
| Output Noise Voltage | $V_{no2}$ | $V_i$ = 0mV, $R_g$ = 0Ω | — | 0.5 | 1.5 | mV |
| Total Harmonic Distortion | THD | $V_O$ = 30V | — | 0.003 | 0.01 | % |
| Open Circuit Voltage Gain | $G_{VO}$ | $V_O$ = 30V | — | 95 | — | dB |

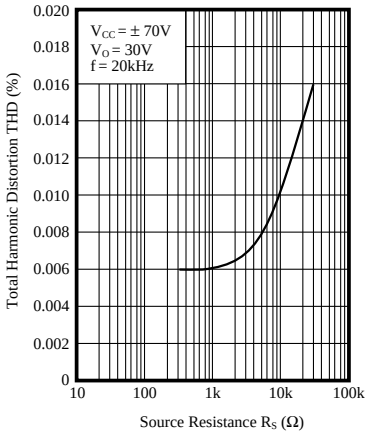
$P_D$ – Ta



THD – f




THD – $R_S$




## ■ Pin Descriptions

| Pin No. | Pin Name | Pin No. | Pin Name |
|---|---|---|---|
| 1 | GND | 10 | $-V_{CC2}$ |
| 2 | Input (Ch.1) | 11 | Output (Ch.2) |
| 3 | N.F.B (Ch.1) | 12 | Linear Feedback (Ch.2) |
| 4 | Phase Compensation (Ch.1) | 13 | Linear Feedback (Ch.2) |
| 5 | Phase Compensation (Ch.1) | 14 | Phase Compensation (Ch.2) |
| 6 | Linear Feedback (Ch.1) | 15 | Phase Compensation (Ch.2) |
| 7 | Linear Feedback (Ch.1) | 16 | N.F.B (Ch.2) |
| 8 | Output (Ch.1) | 17 | Input (Ch.2) |
| 9 | $+V_{CC}$ | 18 | $-V_{CC1}$ |

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