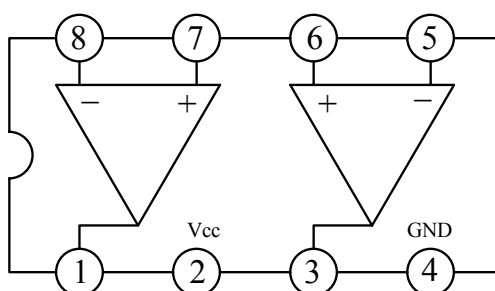


DUAL CHANNEL POWER AMPLIFIER——YD2073**DESCRIPTION**

The YD2073 is a monolithic integrated audio amplifier in a 8-pin plastic dual in line package. It is designed for mini cassette players and radios.

FEATURES

- *Wide operating supply voltage : $V_{CC}=1.8V\sim 5V$
- *Low crossover distortion
- *Low quiescent circuit current
- *Bridge/stereo configuration

BLOCK DIAGRAM**ABSOLUTE MAXIMUM RATINGS** ($T_{amb}=25^{\circ}C$)

| PARAMETER | SYMBOL | VALUE | UNIT |
|-----------------------|-----------|----------|-------------|
| Supply Voltage | V_{cc} | 6 | V |
| Output Peak Current | I_{op} | 500 | mA |
| Power Dissipation | P_D | 300 | mW |
| Operating Temperature | T_{opr} | -20~+ 70 | $^{\circ}C$ |
| Storage Temperature | T_{stg} | -40~+150 | $^{\circ}C$ |

WuXi YouDa Electronics Co., Ltd

Add: No.5 Xijin Road, National Hi-Tech Industrial Development Zone, Wuxi Jiangsu China

Tel: 86-510-85205117 86-510-85205106 Fax: 86-510-85205110 Website: www.e-youda.com

SHENZHEN OFFICE Tel: 86-755-83740369 Fax: 86-755-83741418

ELECTRICAL CHARACTERISTICS(V_{CC}=3.0V, T_{amb}=25°C, all voltage referenced to GND, Unless otherwise specified)**STEREO APPLICATION**

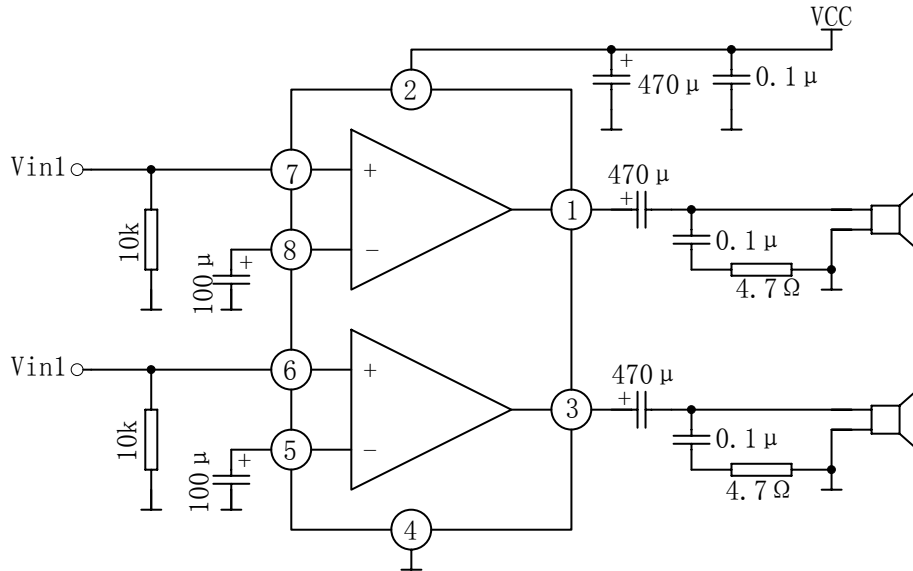
| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------------|------------------|---|--|-----|-----|------|
| Operating Supply Voltage | V _{CC} | | 1.8 | | 5 | V |
| Quiescent Circuit Current | I _{ccq} | | | 6 | 9 | mA |
| Output Power | P _O | f=1kHz THD=10 % | V _{CC} =4.5V, R _L =32Ω | 45 | 60 | mW |
| | | V _{CC} =3V, R _L =8Ω | 45 | 60 | | |
| | | V _{CC} =3V, R _L =4Ω | 90 | 100 | | |
| Total Harmonic Distortion | THD | R _L =32Ω, P _O =30mW | | 0.2 | 1.0 | % |
| | | R _L =8Ω, P _O =30mW | | 0.2 | 1.0 | |
| | | R _L =4Ω, P _O =50mW | | 0.2 | 1.0 | |
| Closed Loop Voltage Gain | G _V | f=1kHz | 37 | 39 | 41 | dB |
| Channel Balance | Δ G _V | | | | ±1 | dB |
| Input Resistance | Z _i | f=1kHz | 100 | | | k Ω |
| Input Noise Voltage | V _{NI} | R _g =10k Ω BPF=20Hz~20kHz | | 2.5 | | μ V |
| Ripple Rejection | RR | f=100Hz | 24 | 30 | | dB |
| Cross Talk | CT | f=1kHz | | 30 | | dB |

BTL APPLICATION

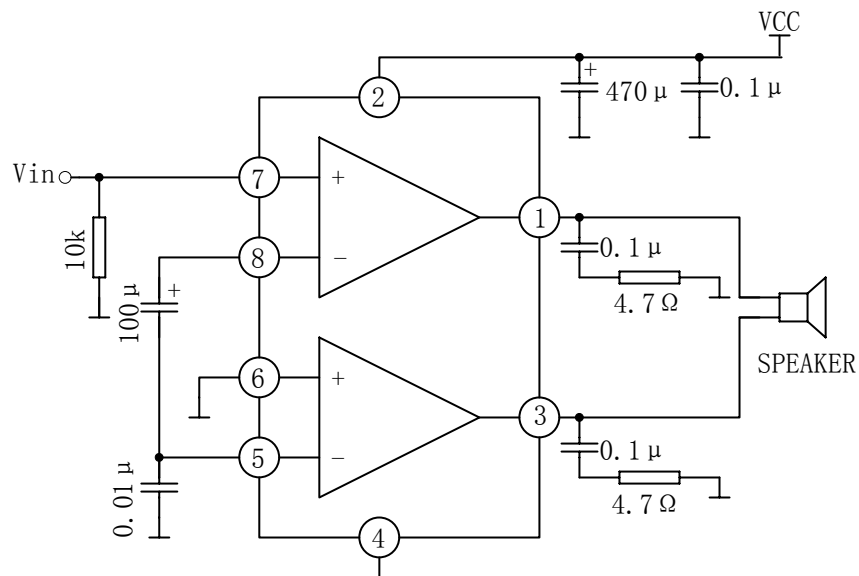
| PARAMETER | SYMBOL | TEST CONDITIONS | NIN | TYP | MAX | UNIT |
|---------------------------|--------------|--|-------------------|-----|----------|---------------|
| Operating Supply Voltage | V_{CC} | | 1.8 | | 5.0 | V |
| Quiescent Circuit Current | I_{ccq} | $R_L = \infty$ | | 6 | 9 | mA |
| DC Output Balance | ΔV_O | $R_L = 8 \Omega$ | | | ± 50 | mV |
| Output Power | P_o | $f = 1\text{kHz}$ THD=10% | $R_L = 16 \Omega$ | 100 | 110 | mW |
| | | | $R_L = 8 \Omega$ | 190 | 200 | mW |
| Total Harmonic Distortion | THD | $P_o = 0.1\text{W}$, $R_L = 8 \Omega$, $f = 1\text{kHz}$ | | 0.5 | 1.0 | % |
| Closed Loop Voltage Gain | G_V | $f = 1\text{kHz}$ | 37 | 39 | 41 | dB |
| Input Resistance | Z_i | $f = 1\text{kHz}$ | 100 | | | k Ω |
| Input Noise Voltage | V_{N1} | $R_g = 10\text{k}\Omega$ BPF=20Hz~20kHz | | 3 | | μV |
| Ripple Rejection | RR | $f = 100\text{Hz}$ | | 40 | | dB |
| Power Bandwidth | BW | $R_L = 8 \Omega$, $P_o = 0.1\text{W}$ | | 30 | | kHz |

APPLICATION CIRCUIT

(1) YD2073 STEREO APPLICATION



(2) YD2073 BTL APPLICATION



OUTLINE DRAWING

SOP-8

unit:mm

