

YOU DA INTEGRATED CIRCUIT

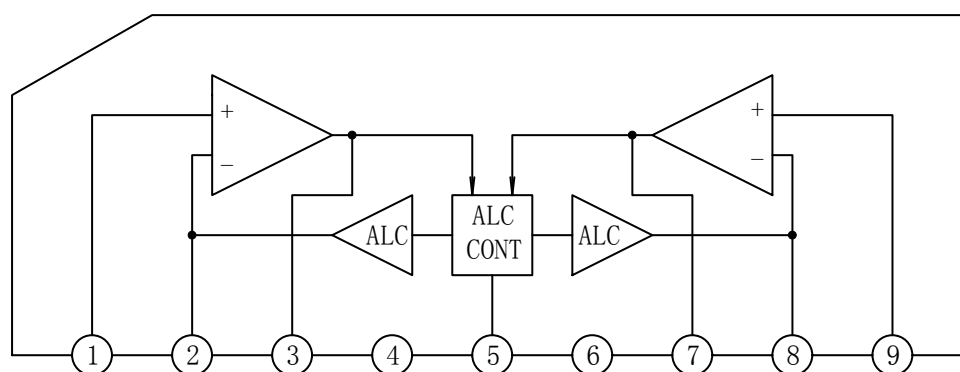
YD22241

**DUAL EQUALIZER AMPLIFIER WITH ALC****—— YD22241****DESCRIPTION**

The YD22241 is a monolithic integrated circuit consisting of dual equalizer amplifier with ALC. It is suitable for stereo radio cassette tape recorder.

**FEATURES**

- \*Dual equalizer amplifier with built-in ALC circuit
- \*Low noise  $V_{NI}=1.0\ \mu\text{V}$  (typ.)
- \*High open loop voltage gain:  $G_{VO}=80\text{dB}$  (typ.)
- \*Power voltage range: 4.5~14V
- \*Good ALC response balance between channels
- \*Not necessary the diode or transistor for ALC
- \*Built in power supply muting circuit
- \*Minimum number of external parts required
- \*Package: SIP-9

**BLOCK DIAGRAM****WuXi YouDa Electronics Co., Ltd**

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**YODA INTEGRATED CIRCUIT**

YD22241

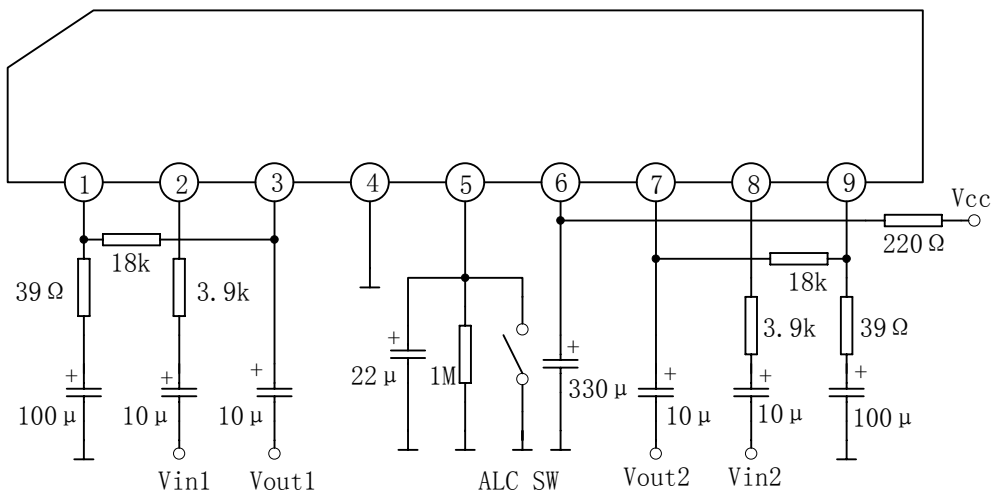
**ABSOLUTE MAXIMUM RATINGS** (Tamb=25°C)

| PARAMETER             | SYMBOL           | VALUE    | UNIT |
|-----------------------|------------------|----------|------|
| Supply Voltage        | V <sub>CC</sub>  | 16       | V    |
| Power Dissipation     | P <sub>D</sub>   | 550      | mW   |
| Operating Temperature | T <sub>opr</sub> | -20~+75  | °C   |
| Storage Temperature   | T <sub>stg</sub> | -40~+125 | °C   |

**ELECTRICAL CHARACTERISTICS**(Tamb=25°C, V<sub>CC</sub>=9V, f=1kHz, Unless otherwise specified)

| PARAMETER                 | SYMBOL                    | TEST CONDITIONS                                  | MIN | TYP | MAX | UNIT       |
|---------------------------|---------------------------|--|-----|-----|-----|------------|
| Quiescent Current         | I <sub>ccq</sub>          | V <sub>i</sub> =0                                | 1.5 | 3.5 | 4.5 | mA         |
| Open Loop Voltage Gain    | G <sub>vo</sub>           | V <sub>o</sub> =0.3V                             | 70  | 80  |     | dB         |
| Closed Loop Voltage Gain  | G <sub>vc</sub>           | V <sub>o</sub> =0.3V                             | 45  | 48  | 50  | dB         |
| Output Voltage            | V <sub>o</sub>            | THD=1%   | 0.6 | 1.2 |     | V          |
| Total Harmonic Distortion | THD                       | V <sub>o</sub> =0.3V                             |     | 0.1 | 0.3 | %          |
| Input Noise Voltage       | V <sub>Ni</sub>           | R <sub>g</sub> =2.2k $\Omega$ ,<br>BW=20Hz~20kHz |     | 1.0 | 2.0 | $\mu$ V    |
| Input Resistance          | Z <sub>i</sub>            |  | 15  | 25  | 45  | k $\Omega$ |
| ALC Range                 | $\Delta$ V <sub>ALC</sub> | R <sub>g</sub> =3.9k $\Omega$ , THD=10%          | 40  | 45  |     | dB         |
| ALC Balance               | $\Delta$ G <sub>v</sub>   | V <sub>in</sub> =1mV                             |     | 0   | 2.5 | dB         |

# APPLICATION CIRCUIT



# OUTLINE DRAWING

SIP9-P-2.54A

Unit : mm

