

## DUAL EQUALIZER AMPLIFIER WITH ALC

### — YD22241

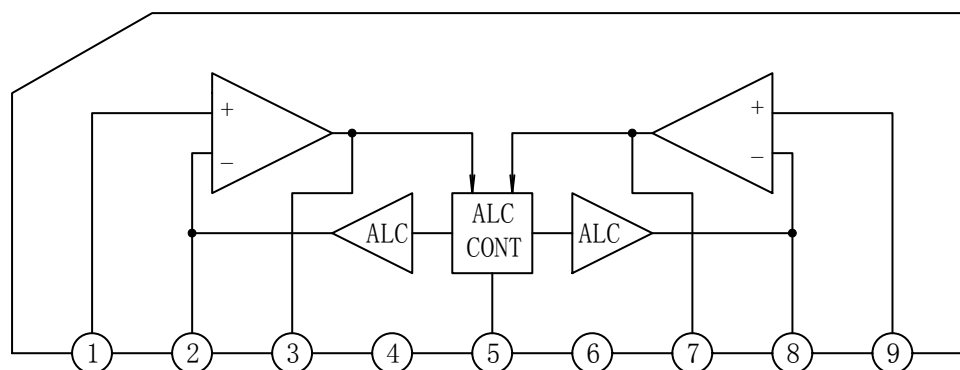
#### DESCRIPTION

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

#### BLOCK DIAGRAM



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**YOUDA INTEGRATED CIRCUIT**

YD22241

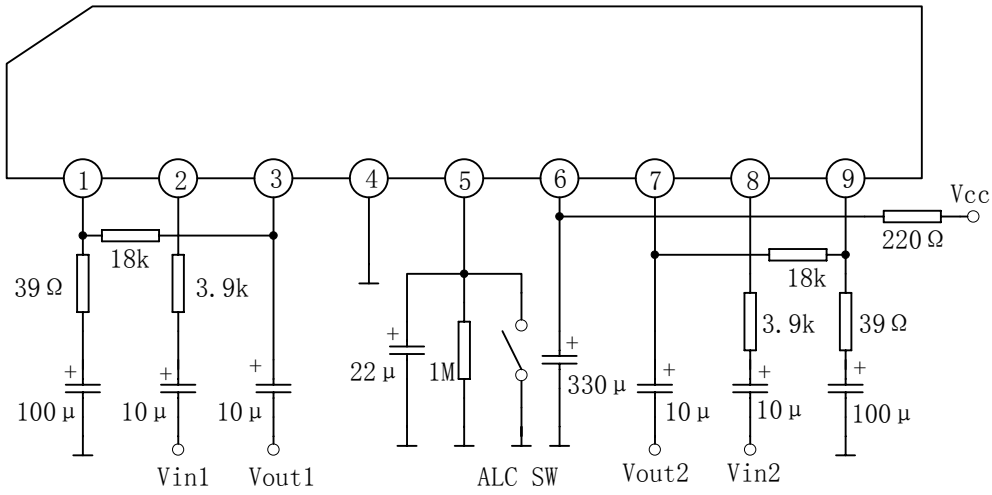
**ABSOLUTE MAXIMUM RATINGS** ( $T_{amb}=25^{\circ}\text{C}$ )

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	$V_{CC}$	16	V
Power Dissipation	$P_D$	550	mW
Operating Temperature	$T_{opr}$	-20~+75	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-40~+125	$^{\circ}\text{C}$

**ELECTRICAL CHARACTERISTICS**( $T_{amb}=25^{\circ}\text{C}$ ,  $V_{CC}=9\text{V}$ ,  $f=1\text{kHz}$ , Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent Current	$I_{ccq}$	$V_i=0$	1.5	3.5	4.5	mA
Open Loop Voltage Gain	$G_{vo}$	$V_o=0.3\text{V}$	70	80		dB
Closed Loop Voltage Gain	$G_{vc}$	$V_o=0.3\text{V}$	45	48	50	dB
Output Voltage	$V_o$	THD=1%	0.6	1.2		V
Total Harmonic Distortion	THD	$V_o=0.3\text{V}$		0.1	0.3	%
Input Noise Voltage	$V_{Ni}$	$R_g=2.2\text{k}\Omega$ , $BW=20\text{Hz}\sim 20\text{kHz}$		1.0	2.0	$\mu\text{V}$
Input Resistance	$Z_i$		15	25	45	$\text{k}\Omega$
ALC Range	$\Delta V_{ALC}$	$R_g=3.9\text{k}\Omega$ , THD=10%	40	45		dB
ALC Balance	$\Delta G_v$	$V_{in}=1\text{mV}$		0	2.5	dB

APPLICATION CIRCUIT



OUTLINE DRAWING

SIP9-P-2.54A

Unit : mm

