

DUAL CHANNEL POWER AMPLIFIER——YD2073

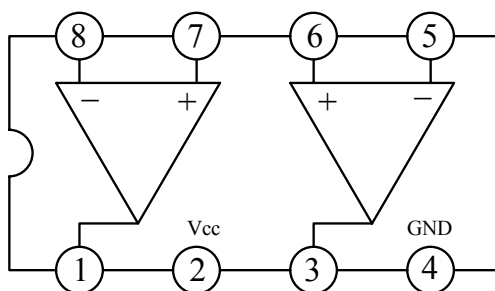
DESCRIPTION

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 (Tamb=25℃)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	6	V
Output Peak Current	Iop	500	mA
Power Dissipation	P _D	300	mW
Operating Temperature	Topr	-20~+ 70	℃
Storage Temperature	Tstg	-40~+150	℃

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**

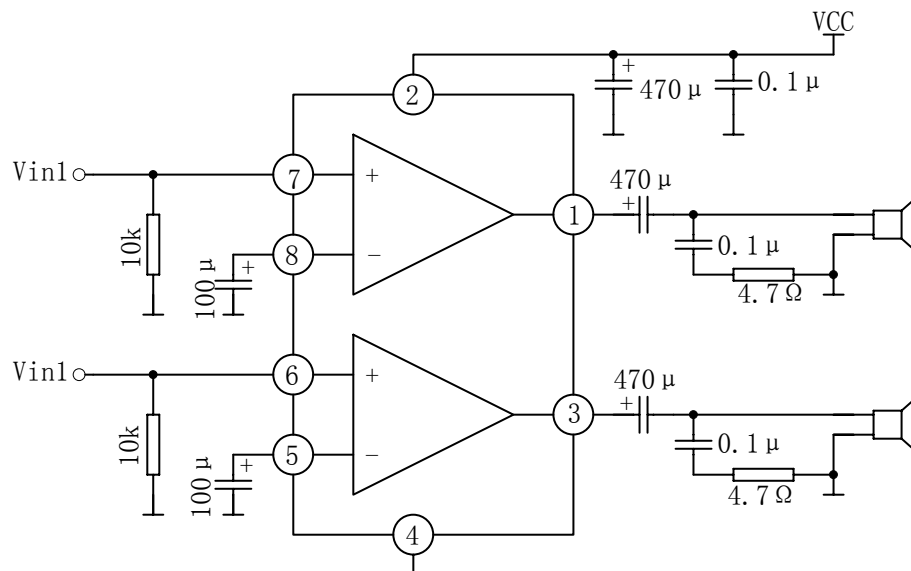
PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Operating Supply Voltage	V _{CC}			1.8		5	V
Quiescent Circuit Current	I _{ccq}				6	9	mA
Output Power	P _O	f=1kHz THD=10%	V _{CC} =4.5V, R _L =32Ω	45	60		mW
			V _{CC} =3V, R _L =8Ω	45	60		
			V _{CC} =3V, R _L =4Ω	90	100		
Total Harmonic Distortion	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_{NI}	$R_g=10\text{k} \Omega$ 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

