

3.5W STEREO AUDIO AMPLIFIER——YD2024

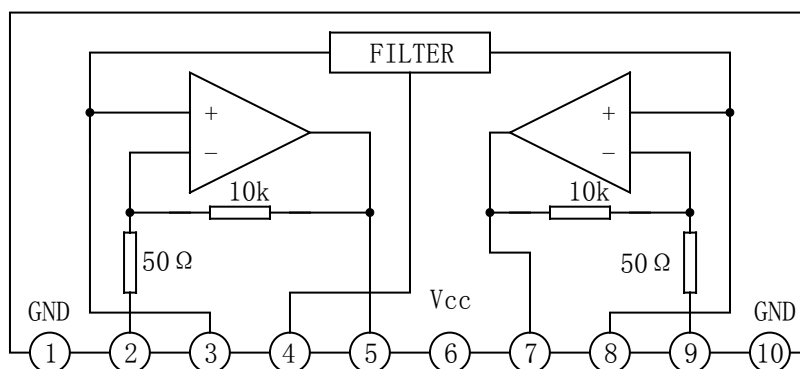
DESCRIPTION

The YD2024 is a monolithic integrated audio amplifier . It is designed for portable cassette players and radios.

FEATURES

- *Working Voltage 3~18V;
- *Few External components;
- *High channel isolation;
- *Voltage gain up to 46dB(Adjustable with external resistor);
- *Soft clipping;
- *Internal thermal protection.

BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS (Tamb=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage (Vin=0)	Vcc	20	V
Supply Voltage (Vin>0)	Vcc	18	V
Output Peak Current	Iop	2.5	A
Operation Temperature	Topr	-20~+75	°C
Storage Temperature	Tstg	-40~+150	°C

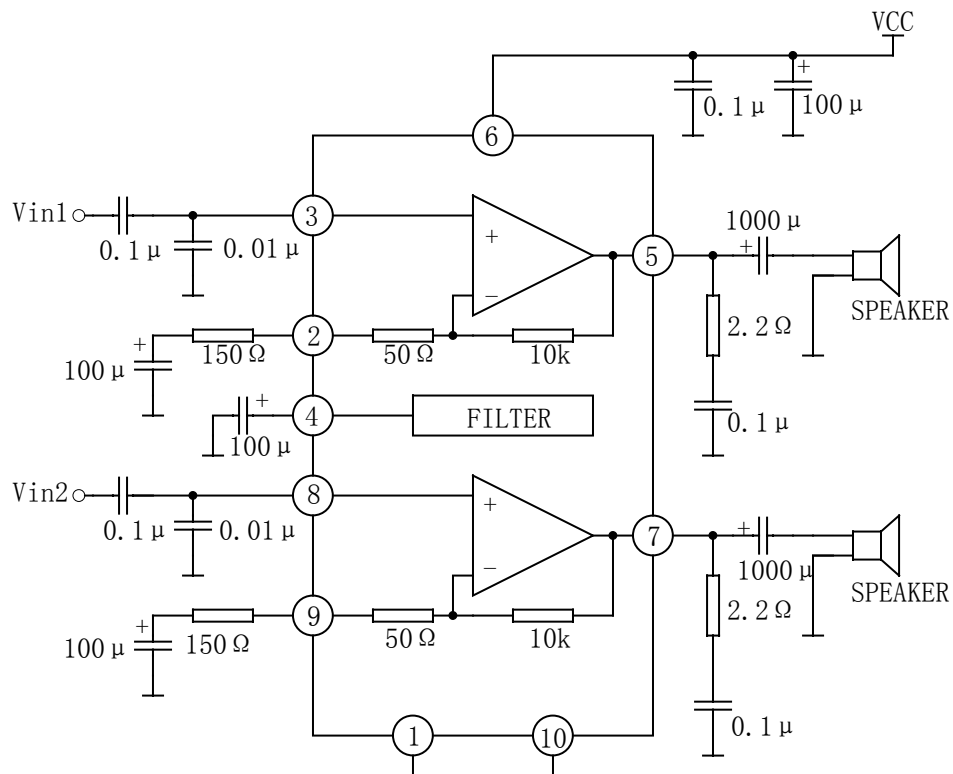
ELECTRICAL CHARACTERISTICS

(Tamb=25°C, VCC=12V, RL=4Ω, f=1KHz, Gv=46dB, Stereo, Unless otherwise specified)

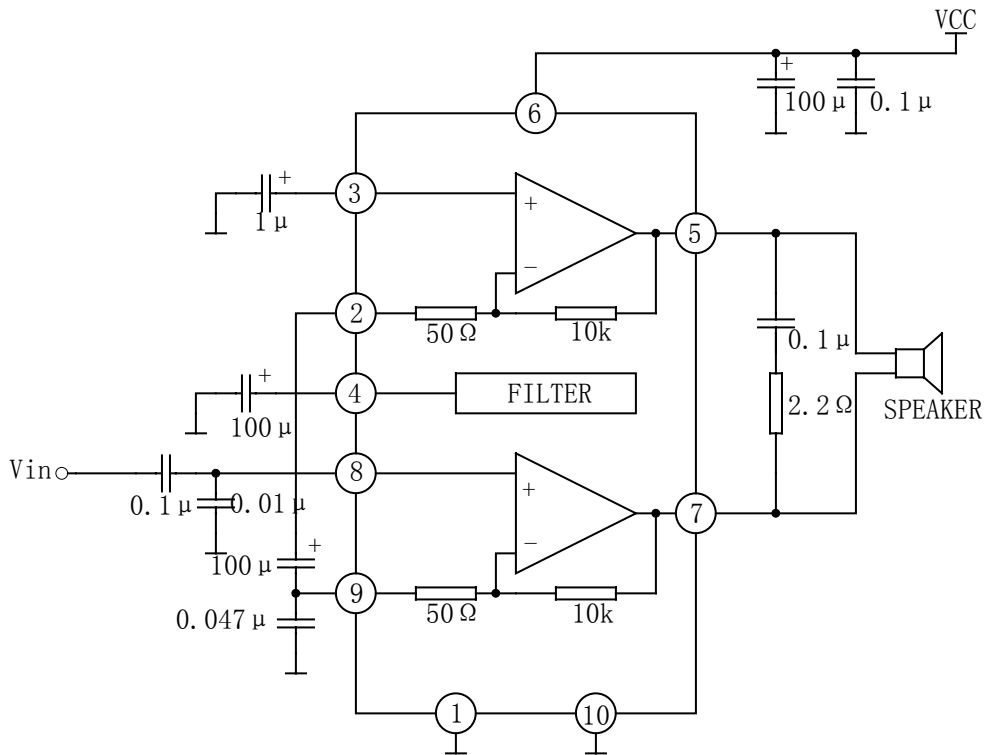
PARAMETER	SYMBOL	TEST CONDITIONS	NIN	TYP	MAX	UNIT
Supply Voltage	Vcc		6		18	V
Quiescent Current	Iccq			35	60	mA
Quiescent Output Voltage	VoDC		5.4	6.0	6.6	V
Output Power	Po	THD=10%	VCC=12V	3.0	3.5	W
			VCC=9V		1.75	
			VCC=6V		0.6	
			VCC=14.4V		5	
			BTL, VCC=12V		10	
Voltage Gain	Gv	Rf=150Ω	31	34	37	dB
		Rf=0Ω		46		
Input Noise Voltage	VNI	Rg=0, PBF=20Hz~20kHz		2		μV
Distortion	THD	Vcc=12V, RL=4Ω		0.3	1.5	%
Supply Voltage Rejection	RR	fr=100Hz, Vr=0.5V, Rg=0Ω	40	50		dB
Cross-Talk	CT	f=1KHz, Rg=10kΩ	40	52		dB
Open Loop Voltage Gain	Gvo			80		dB

APPLICATION CIRCUIT

(1) YD2024 TYPE APPLICATION



(2) YD2024 BTL APPLICATION



OUTLINE DRAWING

