

2.3W STEREO AUDIO AMPLIFIER——YD2025

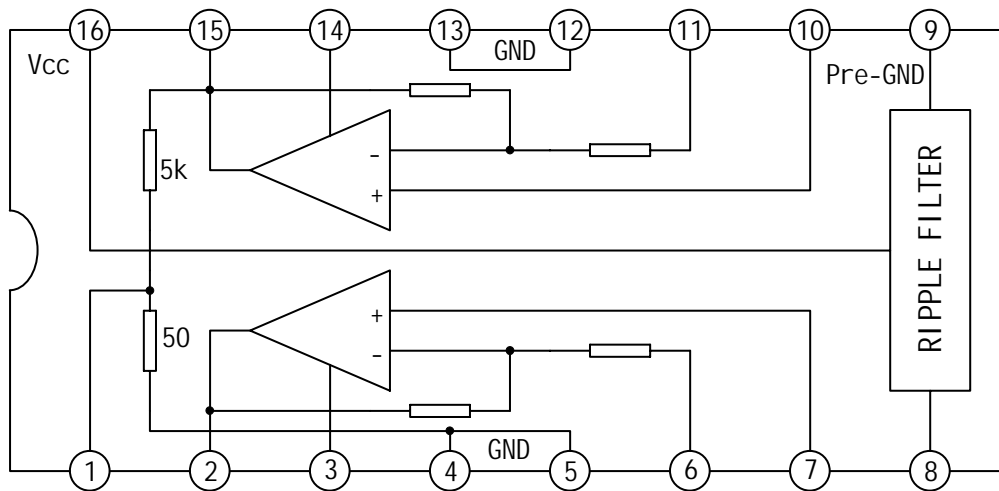
DESCRIPTION

The YD2025 is a monolithic integrated audio Amplifier in a 16-pin plastic dual in line package . It is designed for portable cassette players and radios.

FEATURES

- *Working voltage down to 3V;
- *Few external components;
- *High channel isolation;
- *Voltage gain up to 45dB(Adjustable with external resistor);
- *Soft clipping;
- *Internal thermal protection ;

BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS (Tamb=25)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	15	V
Output Peak Current	Io	1.5	A
Junction Temperature	Tj	150	
Storage Temperature	Tstg	-40 ~ +150	

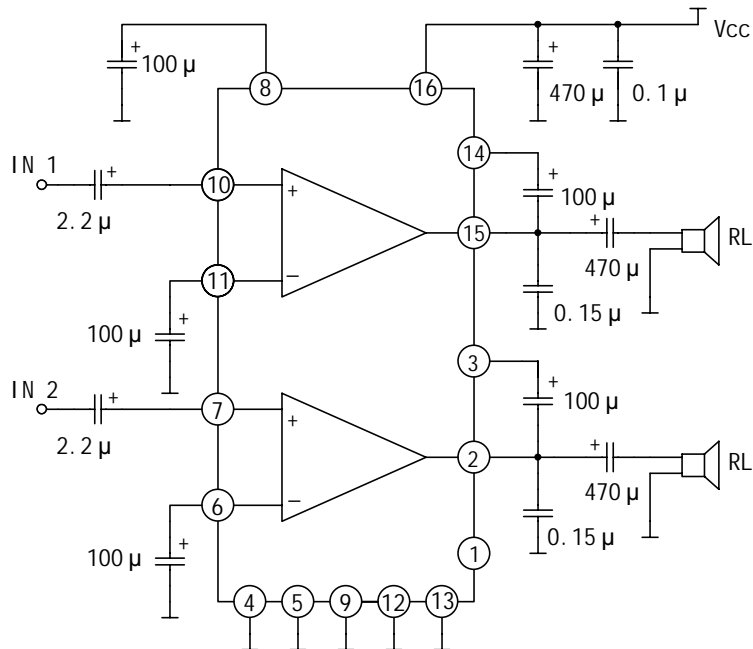
Electrical CHARACTERISTICS

(Tamb=20 , Vcc=9V, f=1kHz, Stereo, Unless otherwise specified)

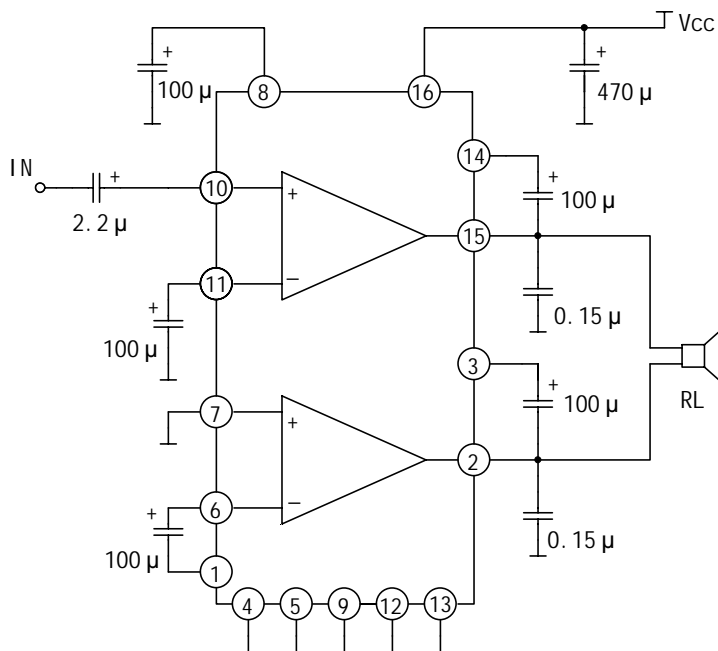
PARAMETER	SYMBOL	TEST CONDITIONS	NIN	TYP	MAX	UNIT	
Supply Voltage	Vcc		3		12	V	
Quiescent Current	Iccq			40	50	mA	
Quiescent Output Voltage	Vo			4.5		V	
Voltage Gain	Gv	Stereo	43	45	47	dB	
		Bridge	49	51	53		
Voltage Gain Difference	Gv				± 1	dB	
Input Impedance	Zi			30		kΩ	
Output Power (STEREO)	Po (THD =10%)	Vcc=9V, RL=4Ω	1.7	2.3		W	
		Vcc=9V, RL=8Ω		1.3		W	
		Vcc=6V, RL=4Ω	0.7	1		W	
		Vcc=6V, RL=8Ω		0.6		W	
		Vcc=3V, RL=4Ω		0.1		W	
Output Power (BTL)		Vcc=9V, RL=8Ω		4.7		W	
		Vcc=6V, RL=4Ω		2.8		W	
Distortion	THD	Stereo, RL=4Ω, Po=250mW		0.3	1.5	%	
		BTL, RL=4Ω, Po=250mW		0.5		%	
Supply Voltage Rejection	RR	Rg=0, Gv=45dB, Vr=150mV, f=100Hz	40	46		dB	
Input Noise Voltage	VNI	Gv=45dB, BPF=20Hz ~ 20kHz	Rg=0		1.5	3	μV
			Rg=10kΩ		3	6	μV
Cross-Talk	CT	Rg=10kΩ, f=1kHz, RL=4Ω, Po=1W	40	55		dB	

APPLICATION CIRCUIT

(1) YD2025 TYPE APPLICATION



(2) YD2025 BTL APPLICATION



OUTLINE DRAWING

DIP-16

unit:mm

