

2.4W STEREO AUDIO AMPLIFIER——YD2025H

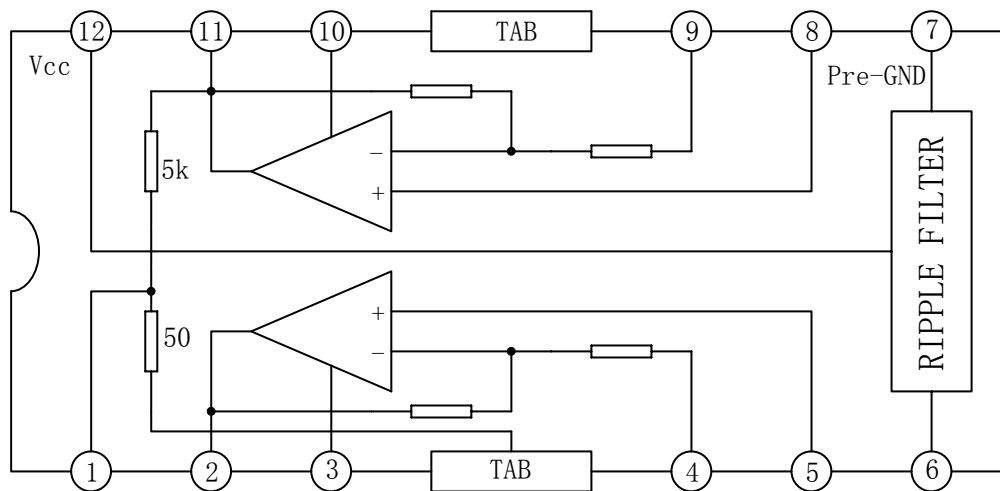
DESCRIPTION

The YD2025H 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°C)

PARAMETER		SYMBOL	VALUE	UNIT
Supply Voltage		Vcc	15	V
Output Peak Current		Iop	1.5	A
Power Dissipation	80*60*1.2mm ³ PCB	P _D	3.5	W
	No Heat Sink	P _D	1.6	W
Ambient operating temperature range		Topr	-20~+75	°C
Storage Temperature		Tstg	-40~+150	°C

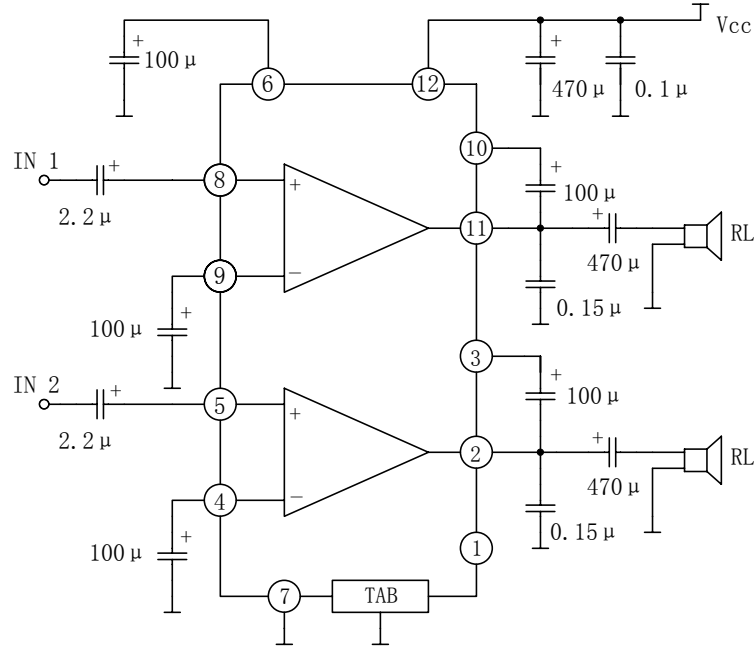
Electrical CHARACTERISTICS

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

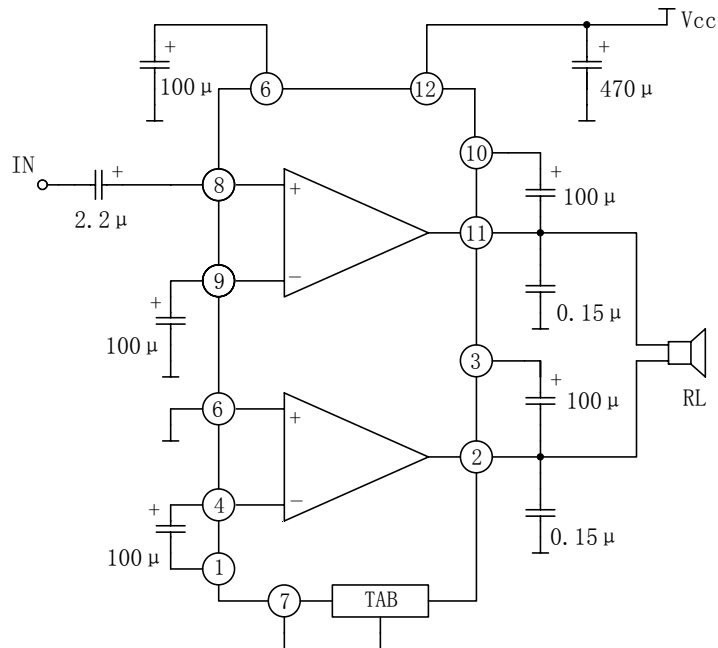
PARAMETER	SYMBOL	TEST CONDITIONS	NIN	TYP	MAX	UNIT
Supply Voltage	Vcc		3		12	V
Quiescent Current	Iccq			40	50	mA
Quiescent Output Voltage	Vo			4.5		V
Voltage Gain	Gv	Stereo	43	45	47	dB
		Bridge	49	51	53	
Voltage Gain Difference	Δ Gv				±1	dB
Input Impedance	Zi			30		kΩ
Output Power (STEREO)	Po (THD =10%)	Vcc=9V, RL=4Ω	1.7	2.4		W
		Vcc=9V, RL=8Ω		1.3		
		Vcc=6V, RL=4Ω	0.7	1.0		
		Vcc=6V, RL=8Ω		0.6		
		Vcc=3V, RL=4Ω		0.1		
Output Power (BTL)		Vcc=9V, RL=8Ω		4.7		W
		Vcc=6V, RL=4Ω		2.8		
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	μ V
			Rg=10kΩ	3	6	
Cross-Talk	CT	Rg=10kΩ, f=1kHz, RL=4Ω, Po=1W	40	55		dB

APPLICATION CIRCUIT

(1) YD2025H TYPE APPLICATION



(2) YD2025H BTL APPLICATION



OUTLINE DRAWING

12-DIPH-300

