

YOU DA INTEGRATED CIRCUIT

YD2025H

2.4W STEREO AUDIO AMPLIFIER——YD2025H

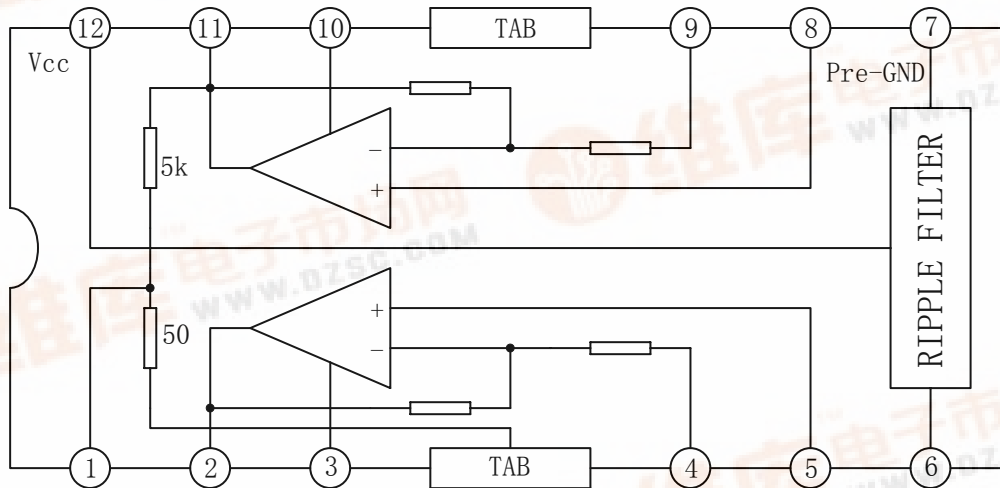
DESCRIPTION

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



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



**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 <sup>3</sup> PCB	P <sub>D</sub>	3.5	W
	No Heat Sink	P <sub>D</sub>	1.6	W
Ambient operating temperature range	Topr	-20~+75	°C	
Storage Temperature	Tstg	-40~+150	°C	

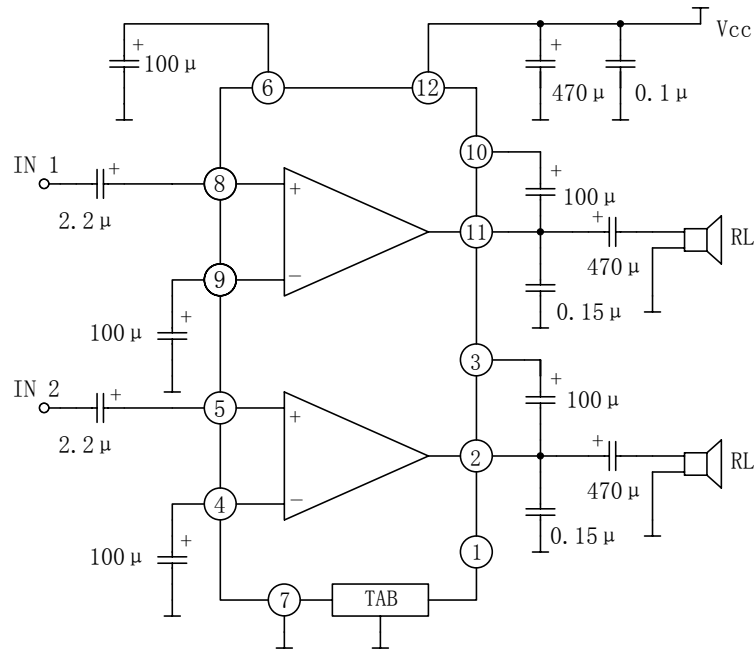
**Electrical CHARACTERISTICS**

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

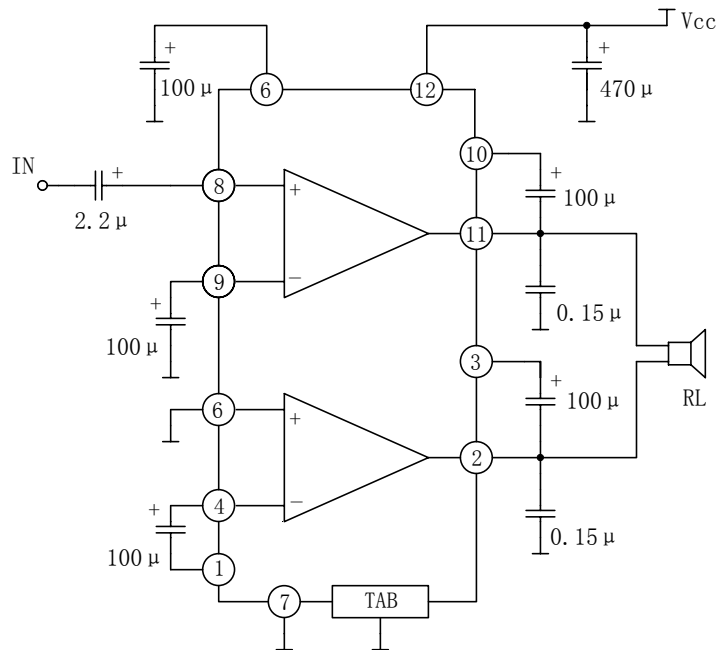
PARAMETER	SYMBOL	TEST CONDITIONS	NIN	TYP	MAX	UNIT	
Supply Voltage	Vcc		3		12	V	
Quiescent Current	Iccq			40	50	mA	
Quiescent Output Voltage	Vo			4.5		V	
Voltage Gain	Gv	Stereo	43	45	47	dB	
		Bridge	49	51	53		
Voltage Gain Difference	Δ Gv				±1	dB	
Input Impedance	Zi			30		kΩ	
Output Power (STEREO)	Po (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			
		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**

