

2.4W STEREO AUDIO AMPLIFIER——YD2025H

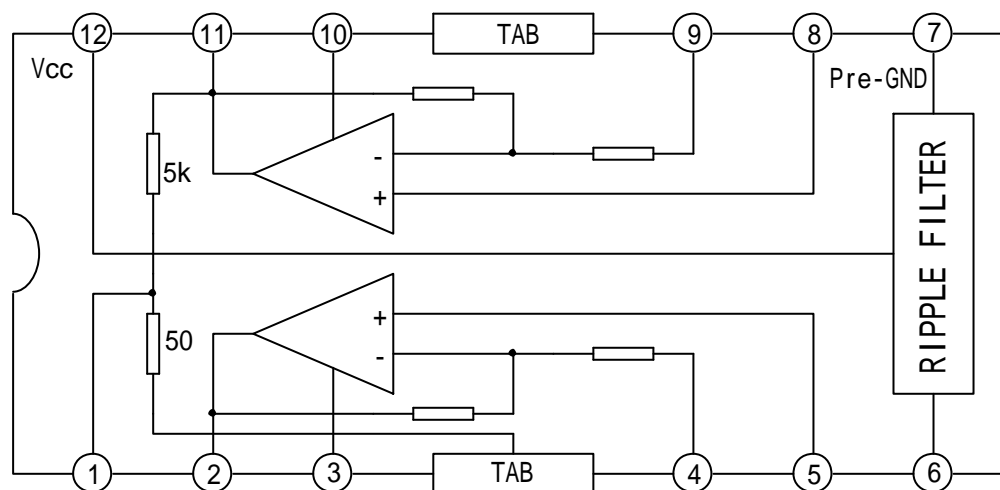
DESCRIPTION

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)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	15	V
Output Peak Current	Iop	1.5	A
Power Dissipation	P _D	4	W
Junction Temperature	T _j	150	
Storage Temperature	T _{stg}	-40 ~ +150	

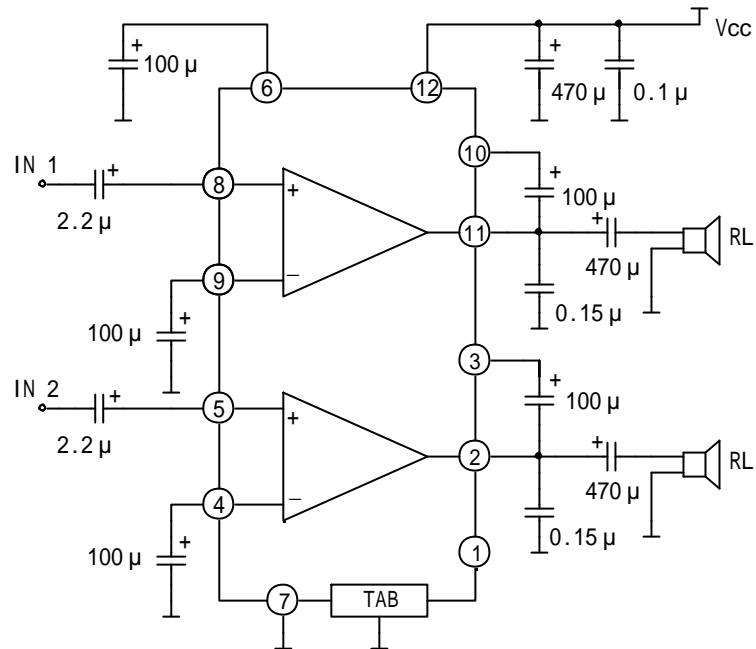
Electrical CHARACTERISTICS

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

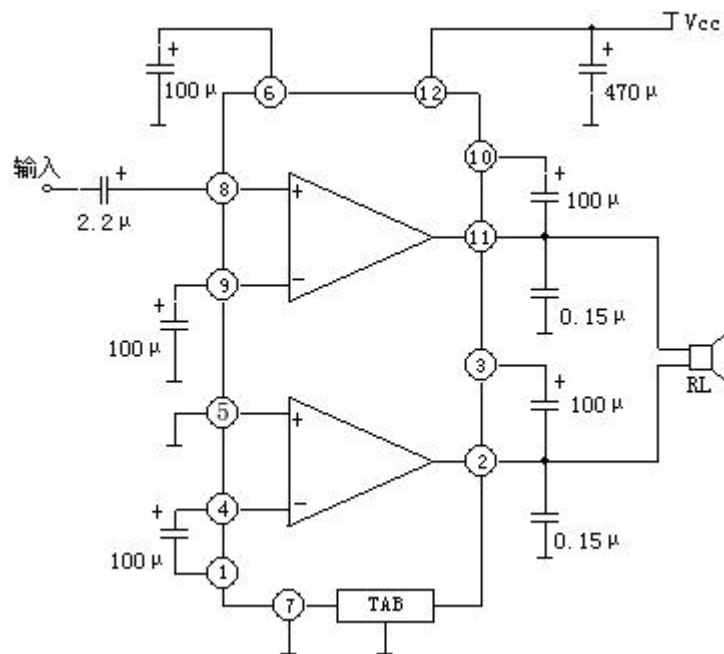
PARAMETER	SYMBOL	TEST CONDITIONS	NIN	TYP	MAX	UNIT	
Supply Voltage	Vcc		3		12	V	
Quiescent Current	Iccq			40	50	mA	
Quiescent Output Voltage	V _o			4.5		V	
Voltage Gain	G _v	Stereo	43	45	47	dB	
		Bridge	49	51	53		
Voltage Gain Difference	G _v				± 1	dB	
Input Impedance	Z _i			30		kΩ	
Output Power (STEREO)	P _o (THD =10%)	Vcc=9V, R _L =4Ω	1.7	2.4		W	
		Vcc=9V, R _L =8Ω		1.3			
		Vcc=6V, R _L =4Ω	0.7	1			
		Vcc=6V, R _L =8Ω		0.6			
		Vcc=3V, R _L =4Ω		0.1			
		Vcc=3V, R _L =8Ω		0.1			
Output Power (BTL)		Vcc=9V, R _L =8Ω		4.7		W	
		Vcc=6V, R _L =4Ω		2.8			
Distortion	THD	Stereo ,R _L =4Ω, P _o =250mW		0.3	1.5	%	
		BTL,R _L =4Ω, P _o =250mW		0.5			
Supply Voltage Rejection	RR	R _g =0, G _v =45dB, V _r =150mV, f=100Hz	40	46		dB	
Input Noise Voltage	V _{NI}	G _v =45dB, BPF=20Hz ~ 20kHz	R _g =0		1.5	3	μV
			R _g =10kΩ		3	6	
Cross-Talk	CT	R _g =10kΩ, f=1kHz, R _L =4Ω, P _o =1W	40	55		dB	

APPLICATION CIRCUIT

(1) YD2025H TYPE APPLICATION



(2) YD2025H BTL APPLICATION



OUTLINE DRAWING

12-DIPH-300

