

YOU DA INTEGRATED CIRCUIT

YD2206

2.5W DUAL AUDIO POWER AMP——YD2206

DESCRIPTION

The YD2206 is a monolithic integrated circuit consisting of a 2-channel power amplifier. It is suitable for stereo and bridge amplifier application of radio cassette tape recorder.

FEATURES

*High output power

Stereo: $P_o=2.5W$ (Typ) at $V_{cc}=9V$, $R_L=4\Omega$

Bridge: $P_o=4.7W$ (Typ) at $V_{cc}=9V$, $R_L=8\Omega$

*Small shock noise at the time of power on/off due to a built-in muting circuit

*Good ripple rejection due to a built-in ripple filter

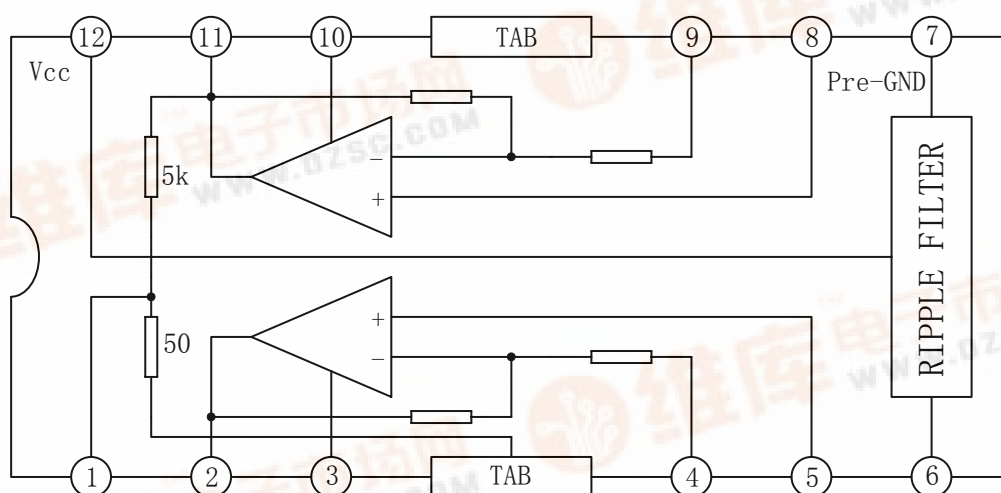
*Good channel separation

*Soft tone at the time of output saturation

*Closed loop voltage gain fixed 45dB (Bridge: 51dB), but availability with external resistor added

*Minimum number of external parts required

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 (T_{amb}=25℃)

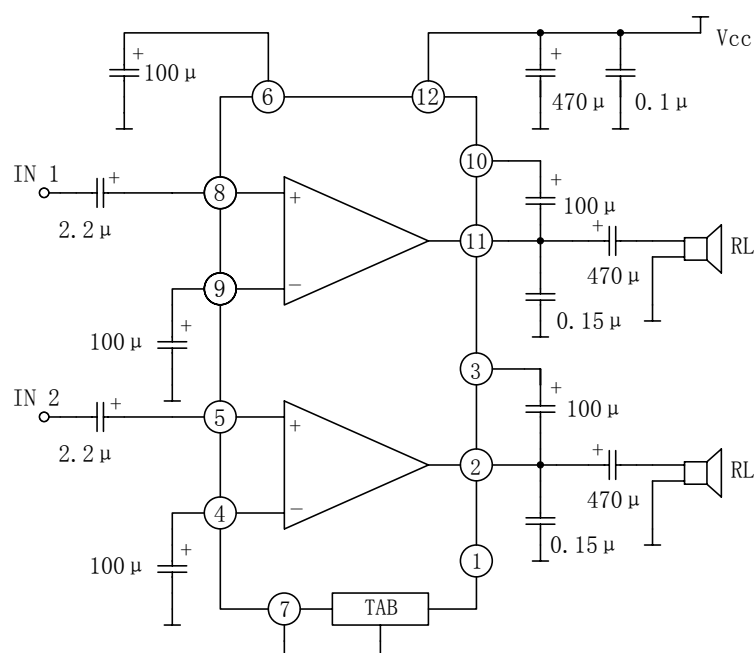
PARAMETER		SYMBOL	VALUE	UNIT
Supply Voltage	V _i =0	V _{CC}	20	V
	V _i >0		15	
Output Peak Current		I _{op}	2.0	A
Power Dissipation	80*60*1.2mm ³ PCB	P _D 1	4.0	W
	No Heat Sink	P _D 2	1.7	W
Operating Temperature t		T _{opr}	-25~+70	℃
Storage Temperature		T _{stg}	-55~+150	℃

ELECTRICAL CHARACTERISTICS(T_{amb}=25℃, V_{CC}=9V, f=1kHz, R_g=600Ω, Unless otherwise specified)

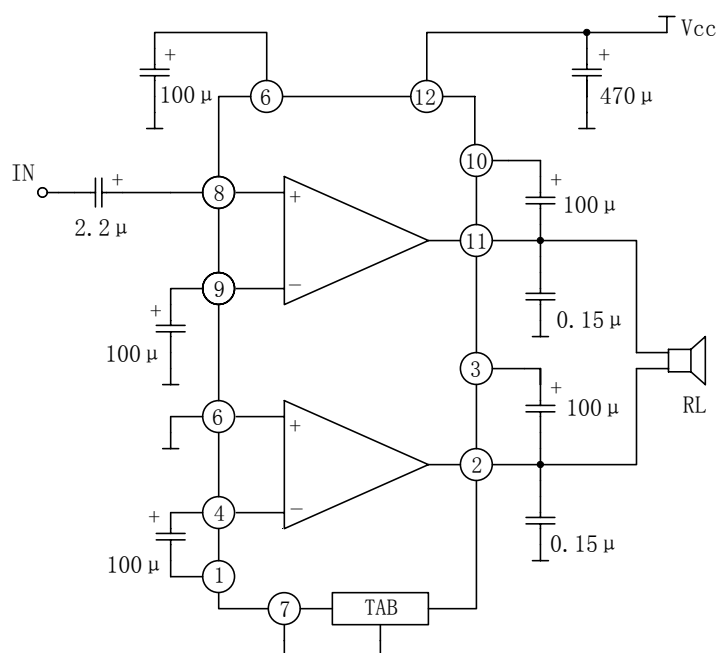
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Supply Voltage	V _{CC}	V _i >0	6	9	15	V
Quiescent Circuit Current	I _{CCQ}	V _i =0		26	40	mA
Output Power	P _O	THD=10%, R _L =4Ω	2.0	2.5		W/CH
		THD=10%, R _L =3Ω		3.0		
Total Harmonic Distortion	THD	P _O =0.4W/CH		0.2	1.0	%
Closed Loop Voltage Gain	G _v	Stereo	43	45	47	dB
		Bridge	49	51	53	
Input Resistance	Z _i	f=1kHz		30		kΩ
Output Noise Voltage	V _{NO}	R _g =10kΩ, BPF=22Hz~22kHz		0.3	1.0	mV
Ripple Rejection Ratio	RR	F=100Hz, R _g =600Ω		46		dB
Cross-Talk	CT	V _O =0dBm	46	55		dB

APPLICATION CIRCUIT

(1) YD2206 TYPE APPLICATION



(2) YD2206 BTL APPLICATION



OUTLINE DRAWING

12-DIPH-300

