6W STEREO AMPLIFIER—YD1007

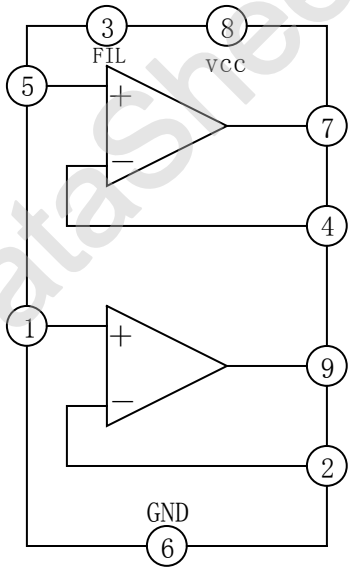
DESCRIPTION

The YD1007 is a class AB dual audio power amplifier assembled in single in line 9 pins package, specially designed for stereo application in music centers TV receivers and portable radios.

FEATURES

*High output power;
*High current capability;
*AC short circuit protection;
*Thermal overload protection.

BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS (Tamb=25℃)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	28	V
Output Peak Current (Repetitive f≥20Hz)	Io	3	A
Output Peak Current (Non repetitive t=100μs)	Io	3.5	A
Power Dissipation at Tcase=70℃	P_D	10	W
Storage and Junction Temperature	T_{stg}	-40～+150	℃

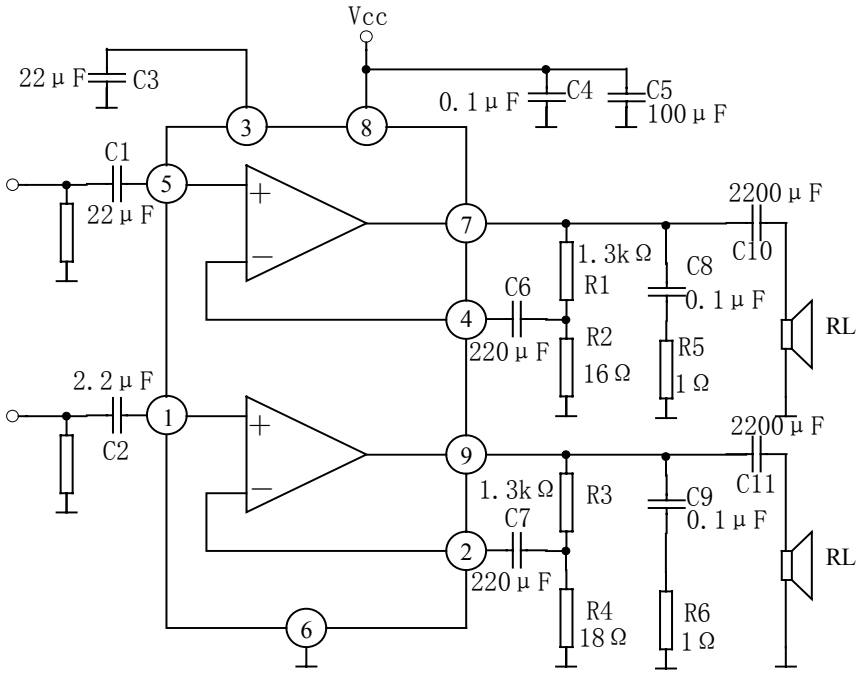
ELECTRICAL CHARACTERISTICS

(Tamb=25℃, Vcc=18V, f=1kHz, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Supply Voltage	Vcc			8		26	V
Quiescent Output Voltage	Vo				8.5		V
Quiescent Circuit Current	Iccq				50	90	mA
Output Power (Each Channel)	Po	F=100 to 6kHz THD=0.5%	Vcc=18V, R_L =4Ω	5.5	6		W
			Vcc=22V, R_L =8Ω	5.5	6		
Input Saturation Voltage	Vim			300			mV
Total Harmonic Distortion	THD	f=1k,Vcc=18V, R_L =4Ω Po=0.1～3W			0.1		%
		f=1k,Vcc=22V, R_L =8Ω Po=0.1～3W			0.05		%
Input Resistance	Ri	f=1kHz		70	200		kΩ
Total Input Noise Voltage	V_{NI}				1.5		μV
Cross Talk	CT	R_L =∞,Rg=10kΩ,f=1kH_Z		50	60		dB
		R_L =∞,Rg=10kΩ,f=10kH_Z		40	50		dB
Supply Voltage Rejection	RR	Rg=10kΩ f_{ripple}=1k,V_{ripple}=1.5V			55		dB

Low Frequency roll Off (-3dB)	f_L	R_L=4Ω， C10=C11=2200μF		40		Hz
Low Frequency Roll Off(-3dB)	f_H			80		KH_Z
Voltage Gain	Gv	R_L =4Ω	35.5	36	36.58	dB
Thermal Shut-down Junction Temperature	Tj			145		℃

APPLICATION CIRCUIT



OUTLINE DRAWING