LOW VOLTAGE AUDIO POWER AMPLIFIER

——YD386

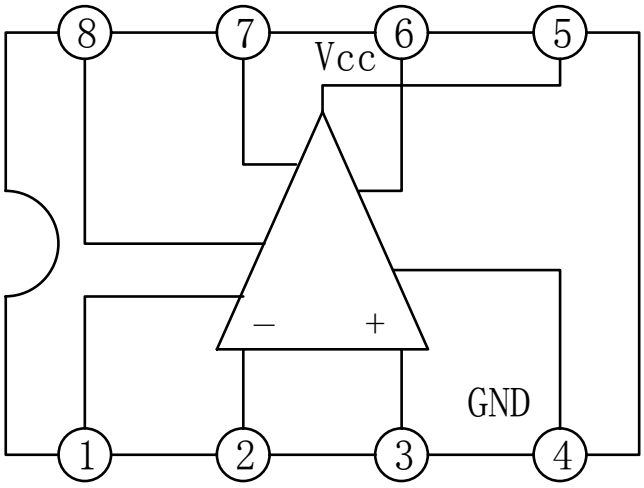
DESCRIPTION

The YD386 is a power amplifier, designed for use in low voltage consumer applications. The gain is internally set to 20 to keep the external part count low. But the additional of an external resistor and capacitor between pin 1 and pin 8 will increase the gain to any value up to 200.

FEATURES

*Minimum external parts;
*Wide supply voltage range: 4V~12V;
*Voltage gains:20~200;
*Ground referenced input;
*Low distortion.

BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS (Tamb=25℃)

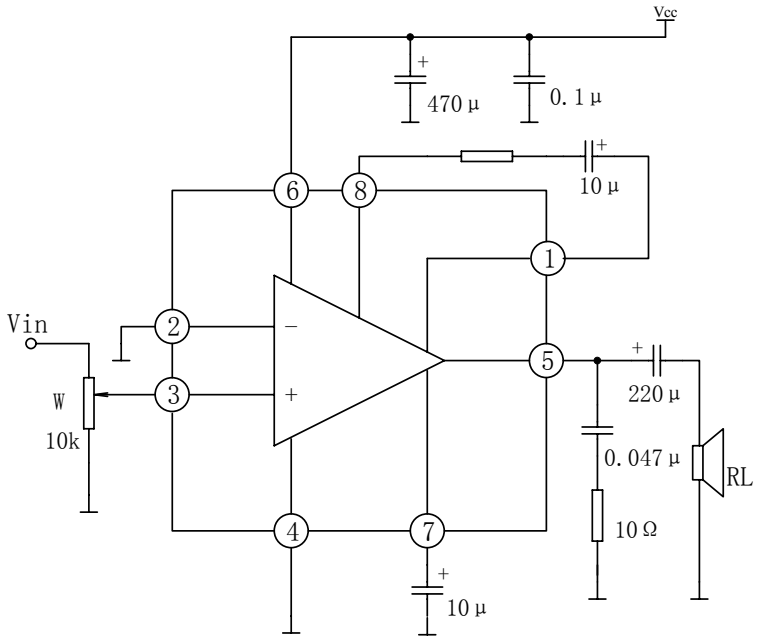
PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	15	V
Input Voltage	Vi	0.4V	V
Output Peak Current	Iop	1.5	A
Power Dissipation	P_D	1250	mW
Operating Temperature	Topr	0 to +70	℃
Storage Temperature	Tstg	-55 to +150	℃

ELECTRICAL CHARACTERISTIC

(Tamb=25℃,all voltage referenced to GND Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	NIN	TYP	MAX	UNIT
Supply Voltage	Vcc		4		12	V
Quiescent Circuit Current	Iccq	Vi=0		4	8	mA
Output Power	Po	Vcc=6V, THD=10%	250	325		mW
		Vcc=9V, THD=10%	500	700		
Voltage Gain	Gv	Pin1 and Pin 8 open		26		dB
		10μF Fron pin1 and pin8		46		
Gain Bandwidth	BW	Pin1 and Pin 8 open		300		kHz
		10μF Fron pin1 and pin8		60		
Total harmonic distortion	THD	Po=125mW, Pin1 and Pin 8 open		0.2		%
Supply Voltage Rejection	RR	10μF Fron pin7 and GND		50		dB
Input Resistance	Zi			50		kΩ
Input Bias current	I_B	Pin2 and Pin 3 open		250		nA

APPLICATION CIRCUIT



OUTLINE DRAWING