

YOU DA INTEGRATED CIRCUIT

YD8207

DUAL AUDIO POWER AMPLIFIER-YD8207

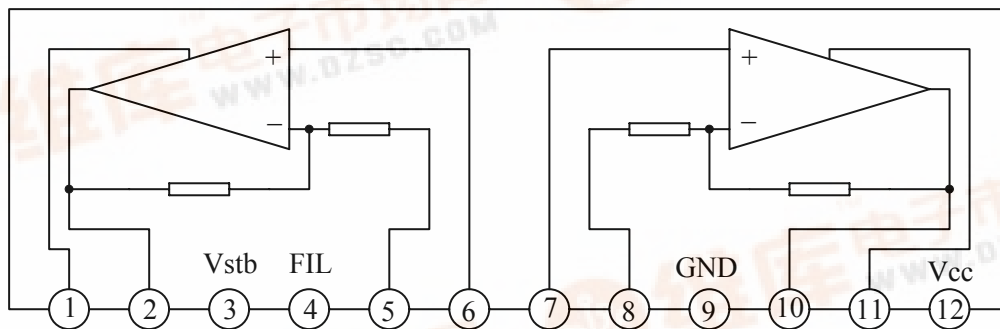
DESCRIPTION

YD8207 is an audio power IC with built-in two channels developed for portable radio cassette tape recorder. Because of the parts reduction and SIP (Single In line Package), space merit is remarkable. Thermal shut down protection circuit is built in.

FEATURES

- \*High Power:  $P_o(1)=2.5W/CH(Typ.)$  ( $V_{cc}=9V, R_L=4\Omega, f=1kHz, THD=10\%$ )  
 $P_o(2)=4.6W/CH(Typ.)$  ( $V_{cc}=12V, R_L=4\Omega, f=1kHz, THD=10\%$ )
- \*Low popping noise at power ON.
- \*Small quiescent current:  $I_{ccq}=19mA(Typ.)$  ( $V_{cc}=9V, V_{in}=0$ )
- \*Soft clip
- \*Built-in thermal shut down protection circuit
- \*Operation supply voltage range:  $V_{cc}=6V\sim 15V$
- \*Best for supply voltage: 9V or 12V

BLOCK DIAGRAM



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**ABSOLUTE MAXIMUM RATINGS** (Tamb=25°C)

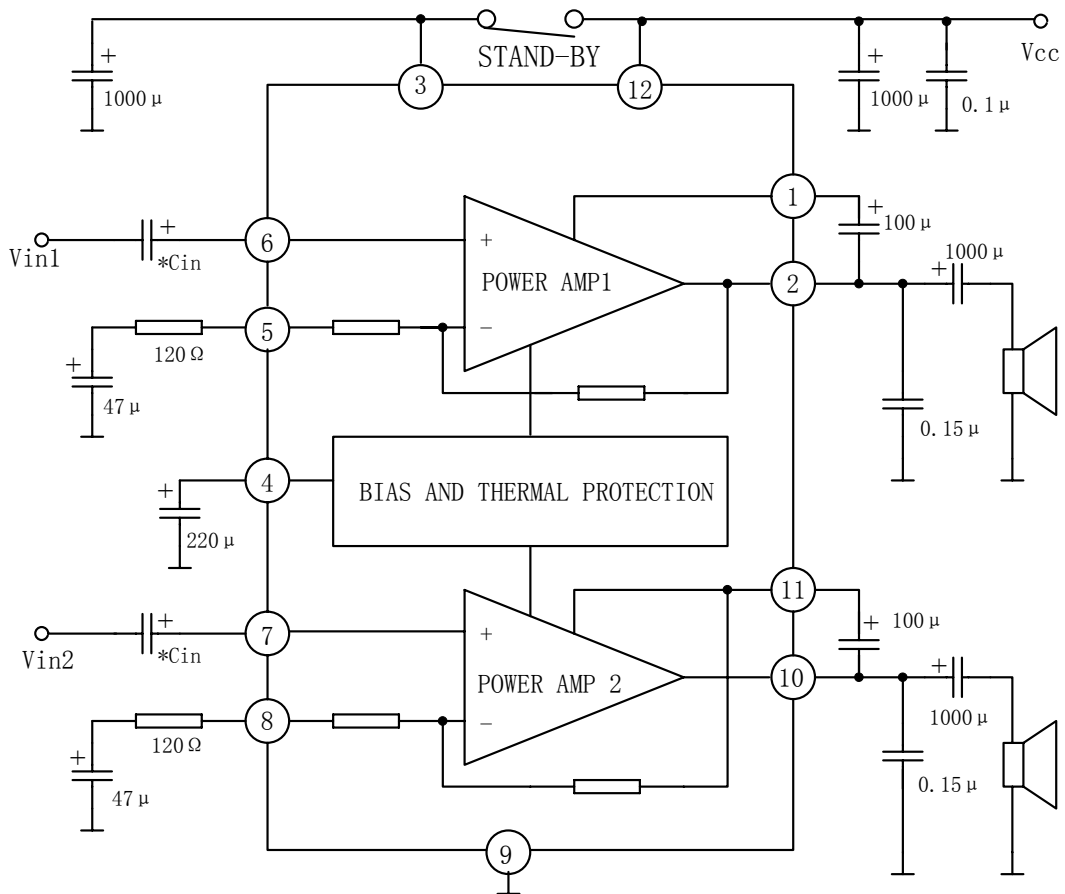
PARAMETER		SYMBOL	VALUE	UNIT
Supply Voltage		V <sub>CC</sub>	20	V
Output Peak Current		I <sub>op</sub>	2.5	A
Power Dissipation	Infinite Heat Sink	P <sub>D</sub>	12.5	W
	No Heat Sink		2.0	
Operating Temperature		T <sub>opr</sub>	-20~+75	°C
Storage Temperature		T <sub>stg</sub>	-55~+150	°C

**ELECTRICAL CHARACTERISTICS**

(Unless otherwise specified, V<sub>CC</sub>=9V, R<sub>L</sub>=4Ω, R<sub>g</sub>=600Ω, f=1kHz, Tamb=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent Current	I <sub>ccq</sub>	V <sub>in</sub> =0		19	45	mA
Output Power	P <sub>o</sub>	THD=10%,	2.0	2.5		W
		V <sub>cc</sub> =12V, THD=10%		4.6		
Total Harmonic Distortion	THD	P <sub>o</sub> =1W/CH		0.2	1.0	%
Voltage Gain	G <sub>v</sub>	R <sub>f</sub> =120Ω Vo=0dBm	43	45	47	dB
		R <sub>f</sub> =0 Vo=0dBm		56		
Input Resistance	Z <sub>i</sub>			30		kΩ
Output Noise Voltage	V <sub>NO</sub>	R <sub>g</sub> =0 BW=20Hz~20kHz		0.3	1.0	mV <sub>s</sub>
Ripple Rejection Ratio	RR	f=100Hz R <sub>g</sub> =600Ω V <sub>r</sub> =0.2V <sub>rms</sub>		54		dB
Cross Talk	CT	R <sub>g</sub> =600Ω, f=1kHz, Vo =0dBm		60		dB
Input Offset Voltage	V <sub>5</sub> ,V <sub>7</sub>			20	60	mV
Standby Current	I <sub>SBY</sub>			1		μ A

APPLICATION CIRCUIT



OUTLINE DRAWING

HSIP12-P-2.54A

Unit : mm

