

## DUAL AUDIO POWER AMPLIFIER-YD8207

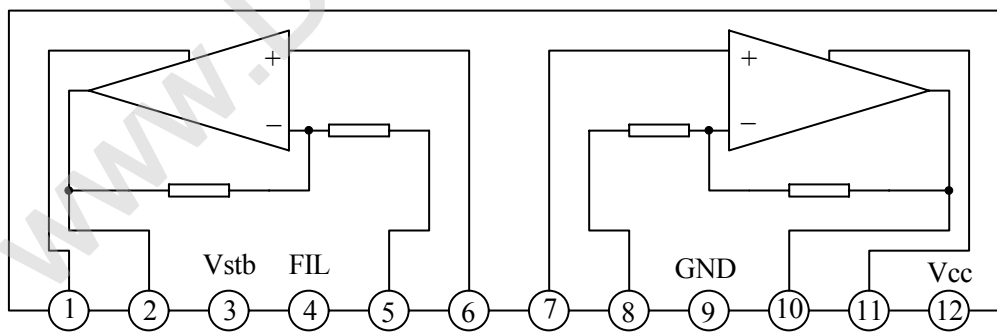
### DESCRIPTION

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** (  $T_{amb}=25$  )

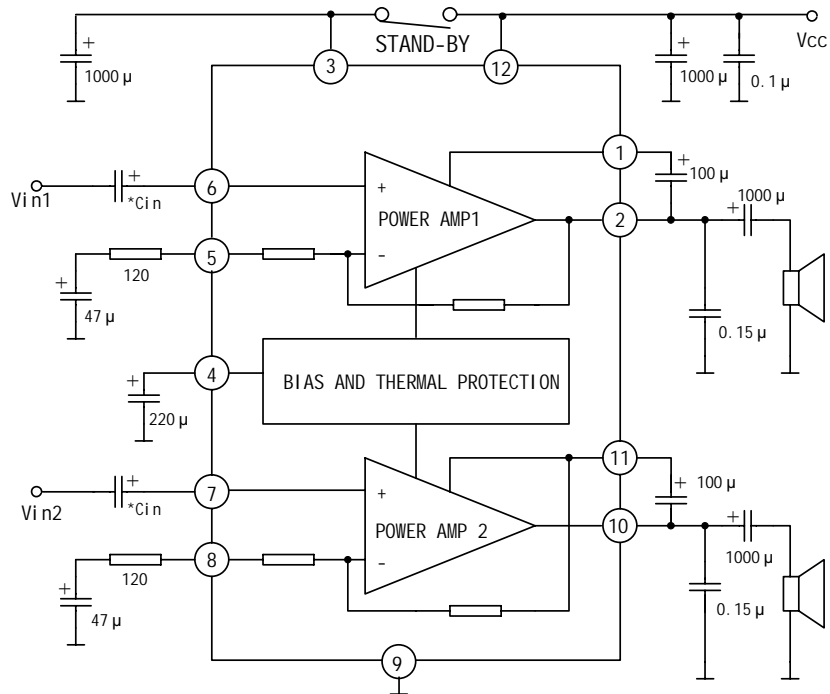
PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	$V_{CC}$	20	V
Output Peak Current	$I_{op}$	2.5	A
Power Dissipation	$P_D$	12.5	W
Operating Temperature	$T_{opr}$	-20 ~ +75	
Storage Temperature	$T_{stg}$	-55 ~ +150	

**ELECTRICAL CHARACTERISTICS**

(Unless otherwise specified,  $V_{CC}=9V$ ,  $R_L=4$  ,  $R_g=600$  ,  $f=1kHz$ ,  $T_{amb}=25$  )

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent Current	$I_{ccq}$	$V_{in}=0$		19	45	mA
Output Power	$P_o$	THD=10% ,	2.0	2.5		W
		$V_{cc}=12V$ , THD=10%		4.6		
Total Harmonic Distortion	THD	$P_o=1W/CH$		0.2	1.0	%
Voltage Gain	$G_v$	$R_f=120\Omega$ $V_o=0dBm$	43	45	47	dB
		$R_f=0$ $V_o=0dBm$		56		
Input Resistance	$Z_i$			30		k $\Omega$
Output Noise Voltage	$V_{NO}$	$R_g=0$ BW=20Hz ~ 20kHz		0.3	1.0	mV <sub>s</sub>
Ripple Rejection Ratio	RR	$f=100Hz$ $R_g=600\Omega$ $V_r=0.2V_{rms}$		54		dB
Cross Talk	CT	$R_g=600\Omega$ , $f=1kHz$ , $V_o =0dBm$		60		dB
Input Offset Voltage	$V_5, V_7$			20	60	mV
Standby Current	$I_{SBY}$			1		$\mu A$

APPLICATION CIRCUIT



OUTLINE DRAWING

