

8.2W BTL AUDIO POWER AMPLIFIER-YD5104

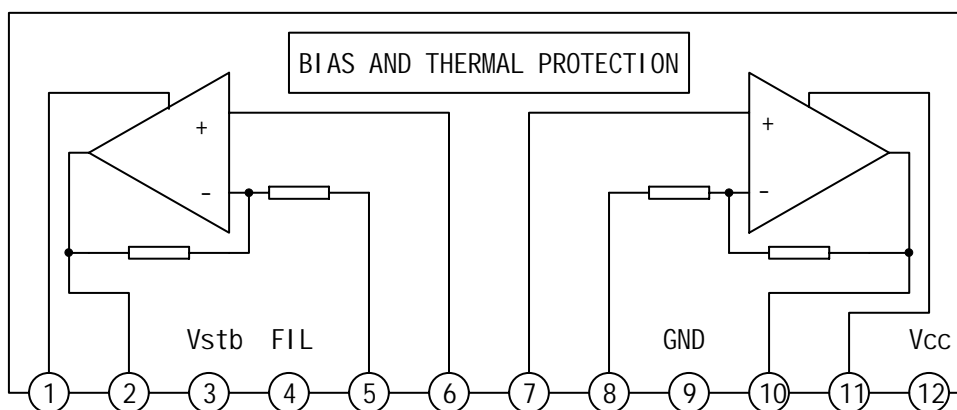
DESCRIPTION

YD5104 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 : $P_o=8.2W$ (Typ.) (BTL, $V_{cc}=10.8V$, $R_L=4\Omega$, $f=1kHz$, THD=10%)
- *Operation supply voltage range: $V_{cc}=6V \sim 10.8V$
- *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

BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS ($T_{amb}=25$)

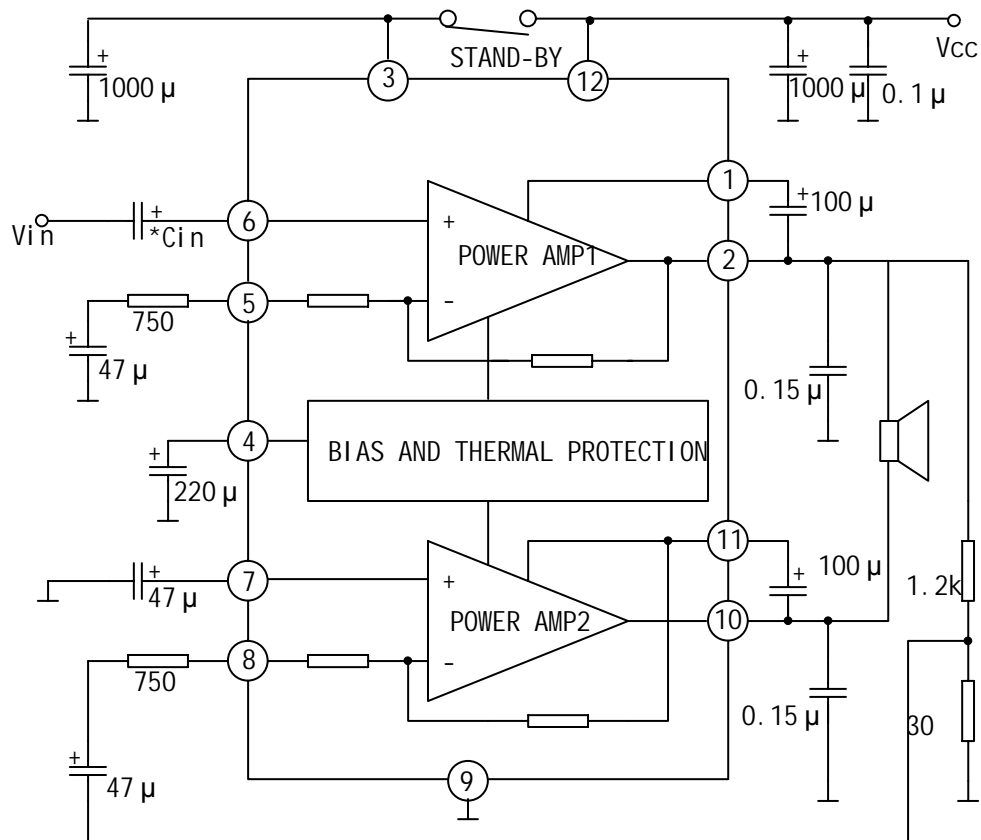
PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V_{CC}	15	V
Output Peak Current	I_{op}	2.5	A
Power Dissipation	P_D	12.5	W
Operating Temperature	T_{opr}	-20 ~ +75	
Storage Temperature	T_{stg}	-55 ~ +150	

ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, BTL, $V_{cc}=10.8V$, $R_L=4$, $R_g=600$, $f=1kHz$, $T_{amb}=25$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent Current	I_{ccq}	$V_{in}=0$		21	45	mA
Output Power	P_o	THD=10% ,	7.6	8.2		W
Total Harmonic Distortion	THD	$V_o=2.0V_{rms}$		0.2	1.0	%
Voltage Gain	G_V	$R_f=750\Omega$ $V_o=0dBm$	38	40	42	dB
Input Resistance	Z_i			30		k Ω
Output Noise Voltage	V_{NO}	$R_g=0$ BW=20Hz ~ 20kHz		0.3	1.0	mV
Ripple Rejection Ratio	RR	$f=100Hz$ $R_g=600\Omega$ $V_r=0.2V_{rms}$		52		dB
Input Offset Voltage	V_5, V_7			30	60	mV
Standby Current	I_{SBY}			1		μA

APPLICATION CIRCUIT



OUTLINE DRAWING

