

DUAL AUDIO POWER AMPLIFIER—YD6282

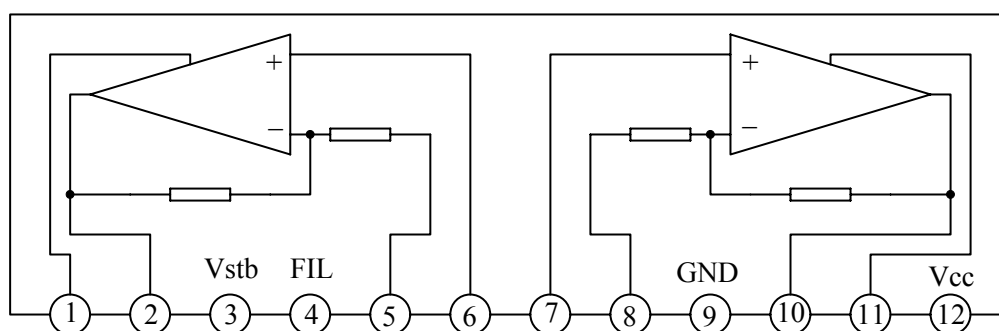
DESCRIPTION

YD6282 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: $P_{out}(1) = 2.5W/CH$ (Typ.) ($V_{cc}=9V$, $R_L=4\Omega$, $f=1kHz$, $THD=10\%$)
 $P_{out}(2) = 4.6W/CH$ (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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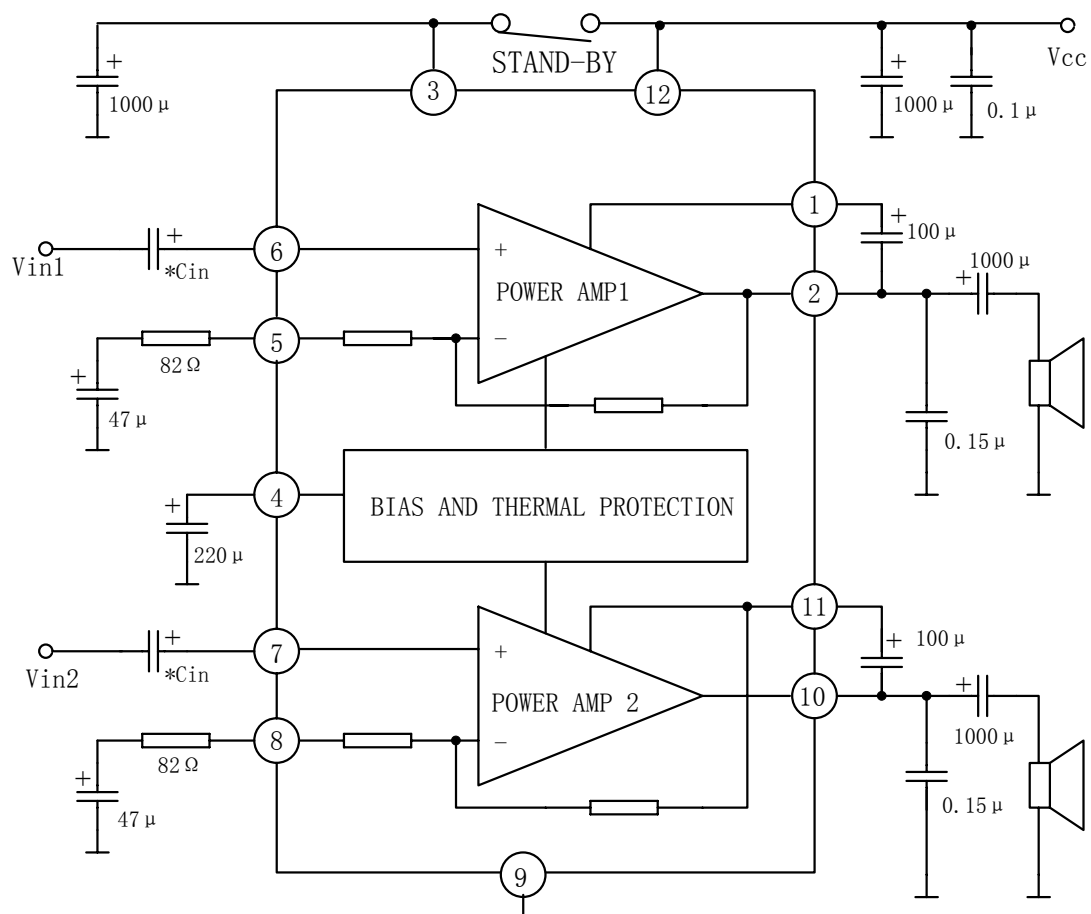
ABSOLUTE MAXIMUM RATINGS ($T_{amb}=25^{\circ}\text{C}$)

PARAMETER		SYMBOL	VALUE	UNIT
Supply Voltage		V_{CC}	20	V
Output Peak Current		I_{op}	2.5	A
Power Dissipation	Infinite Heat Sink	P_D	12.5	W
	No Heat Sink		2.0	
Operating Temperature		T_{opr}	$-20\sim+75$	$^{\circ}\text{C}$
Storage Temperature		T_{stg}	$-55\sim+150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS(Unless otherwise specified, $V_{CC}=9\text{V}$, $R_L=4\Omega$, $R_g=600\Omega$, $f=1\text{kHz}$, $T_{amb}=25^{\circ}\text{C}$)

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
		$V_{cc}=12\text{V}$, THD=10%		4.6		
Total Harmonic Distortion	THD	$P_o=1\text{W/CH}$		0.2	1.0	%
Voltage Gain	G_v	$R_f=82\Omega$ $V_o=0\text{dBm}$	43	45	47	dB
		$R_f=0$ $V_o=0\text{dBm}$		56		
Input Resistance	Z_i			30		$\text{k}\Omega$
Output Noise Voltage	V_{NO}	$R_g=0$ $\text{BW}=20\text{Hz}\sim 20\text{kHz}$		0.3	1.0	mV_s
Ripple Rejection Ratio	RR	$f=100\text{Hz}$ $R_g=600\Omega$ $V_r=0.2\text{V}_{rms}$		54		dB
Cross Talk	CT	$R_g=600\Omega$ $f=1\text{kHz}$, $V_o=0\text{dBm}$		60		dB
Input Offset Voltage	V_5, V_7			20	60	mV
Standby Current	I_{SBY}			1		μA

APPLICATION CIRCUIT



OUTLINE DRAWING

HSIP12-P-2.54A

Unit : mm

