

## DUAL AUDIO POWER AMPLIFIER-YD6283

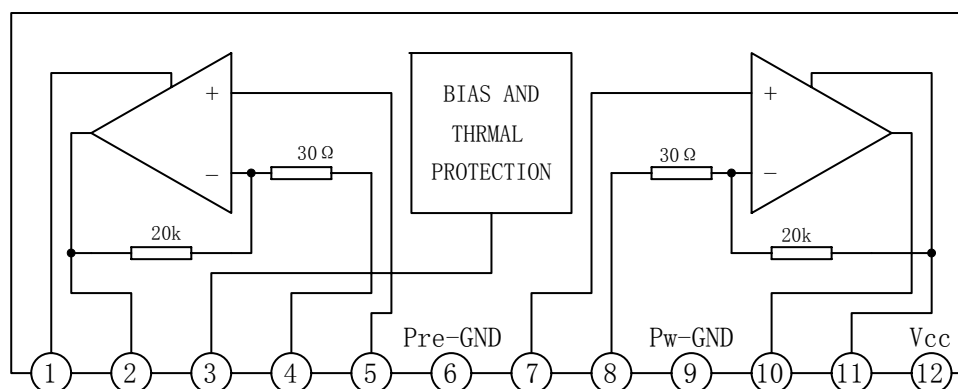
### DESCRIPTION

YD6283 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, 12V.

### BLOCK DIAGRAM



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## YUDA INTEGRATED CIRCUIT

YD6283

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

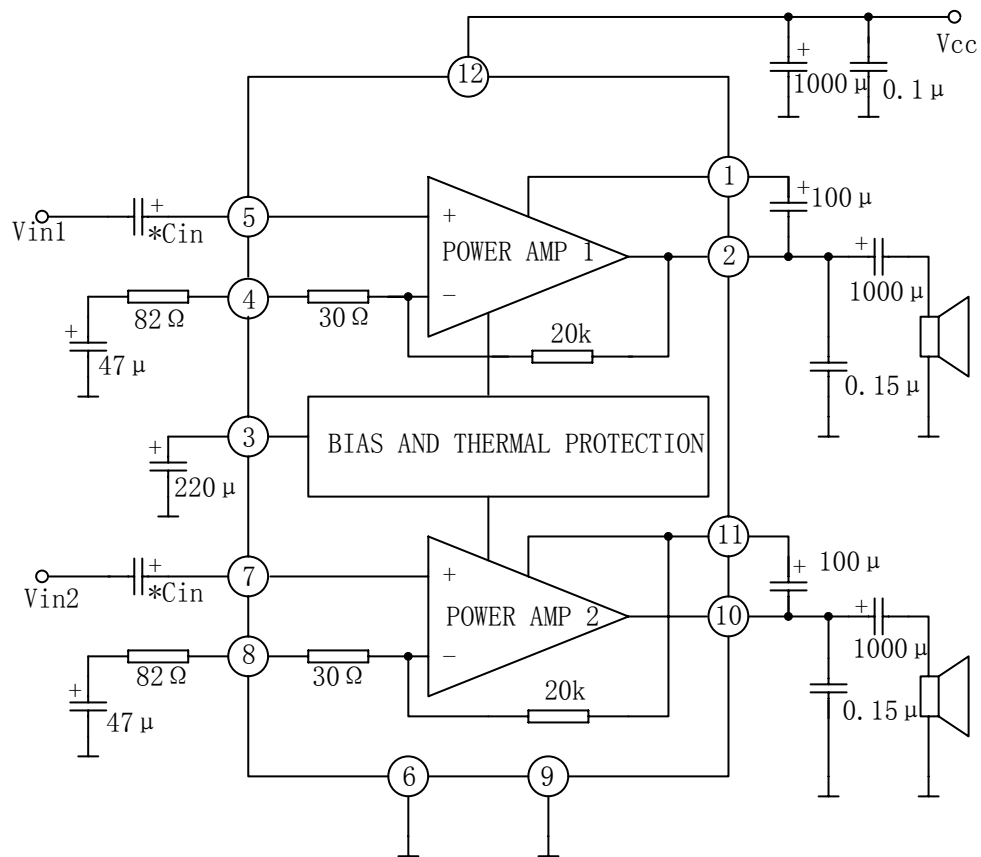
PARAMETER		SYMBOL	VALUE	UNIT
Supply Voltage		V <sub>CC</sub>	20	V
Output Peak Current		I <sub>op</sub>	2.5	A
Power Dissipation	Infinite Heat Sink	P <sub>D</sub>	12.5	W
	No Heat Sink		2.0	
Operating Temperature		T <sub>opr</sub>	-20~+75	°C
Storage Temperature		T <sub>stg</sub>	-55~+150	°C

## 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>OUT</sub> =1W/CH		0.2	1.0	%
Voltage Gain	G <sub>v</sub>	R <sub>f</sub> =82Ω V <sub>o</sub> =0dBm	43	45	47	dB
		R <sub>f</sub> =0 V <sub>o</sub> =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 <sub>RIP</sub> =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, V <sub>o</sub> =0dBm		60		dB
Input Offset Voltage	V <sub>s</sub> , V <sub>7</sub>			20	60	mV

## APPLICATION CIRCUIT



OUTLINE DRAWING

HSIP12-P-2.54A

Unit : mm

