

**DUAL CHANNEL POWER AMPLIFIER——YD2822A**

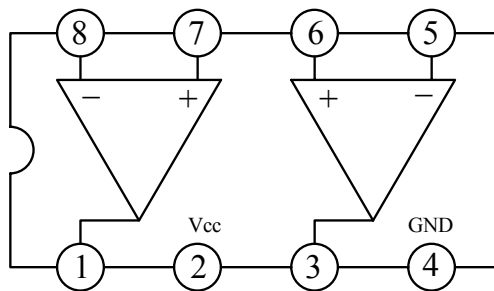
**DESCRIPTION**

The YD2822A is a monolithic integrated audio amplifier in a 8-pin plastic dual in line package. It is designed for mini cassette players and radios.

**FEATURES**

- \*Wide operating supply voltage : $V_{CC}=1.8V\sim 5V$
- \*Low crossover distortion
- \*Low quiescent circuit current
- \*Bridge/stereo configuration

**BLOCK DIAGRAM**



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

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	6	V
Output Peak Current	Iop	500	mA
Power Dissipation	P <sub>D</sub>	600	mW
Operating Temperature	Topr	-20~+ 70	°C
Storage Temperature	Tstg	-40~+150	°C

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**ELECTRICAL CHARACTERISTICS**

(V<sub>cc</sub>=3.0V, T<sub>amb</sub>=25°C, all voltage referenced to GND, Unless otherwise specified)

**STEREO APPLICATION**

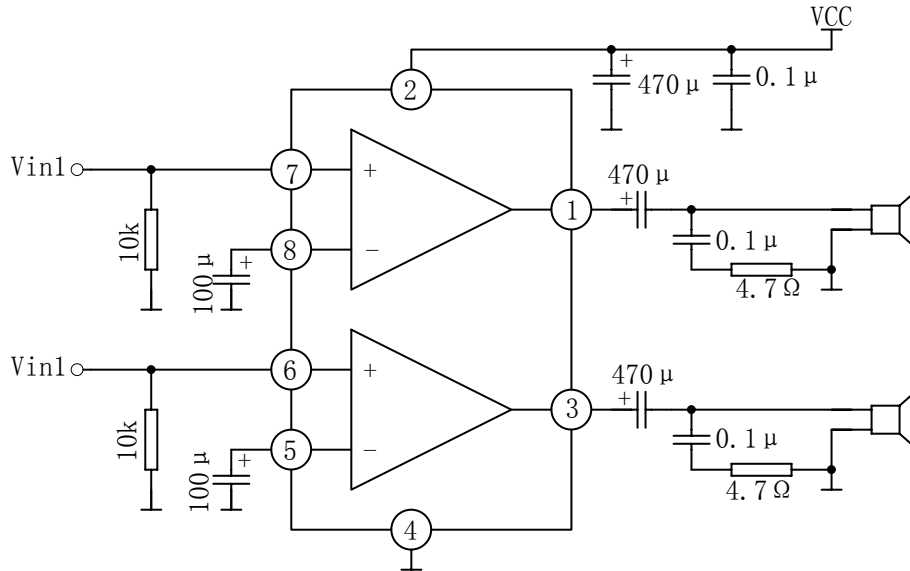
PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Operating Supply Voltage	V <sub>CC</sub>			1.8		5	V
Quiescent Circuit Current	I <sub>ccq</sub>				6	9	mA
Output Power	P <sub>O</sub>	f=1kHz THD=10 %	V <sub>CC</sub> =4.5V, R <sub>L</sub> =32Ω	45	60		mW
			V <sub>CC</sub> =3V, R <sub>L</sub> =8Ω	45	60		
			V <sub>CC</sub> =3V, R <sub>L</sub> =4Ω	90	100		
Total Harmonic Distortion	THD	R <sub>L</sub> =32Ω, P <sub>O</sub> =30mW			0.2	1.0	%
		R <sub>L</sub> =8Ω, P <sub>O</sub> =30mW			0.2	1.0	
		R <sub>L</sub> =4Ω, P <sub>O</sub> =50mW			0.2	1.0	
Closed Loop Voltage Gain	G <sub>V</sub>	f=1kHz		37	39	41	dB
Channel Balance	Δ G <sub>V</sub>					±1	dB
Input Resistance	Z <sub>i</sub>	f=1kHz		100			k Ω
Input Noise Voltage	V <sub>NI</sub>	R <sub>g</sub> =10k Ω BPF=20Hz~20kHz			2.5		μ V
Ripple Rejection	RR	f=100Hz		24	30		dB
Cross Talk	CT	f=1kHz			30		dB

**BTL APPLICATION**

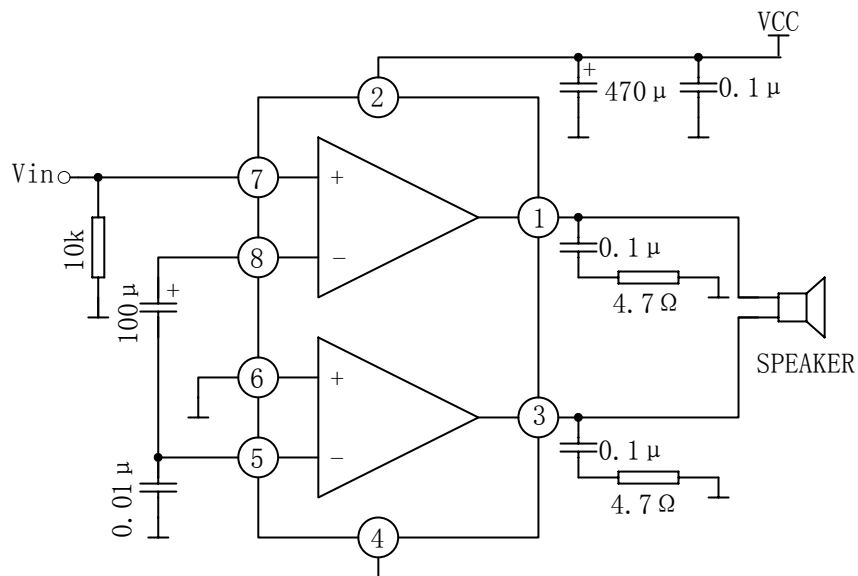
PARAMETER	SYMBOL	TEST CONDITIONS	NIN	TYP	MAX	UNIT
Operating Supply Voltage	$V_{CC}$		1.8		5.0	V
Quiescent Circuit Current	$I_{ccq}$	$R_L = \infty$		6	9	mA
DC Output Balance	$\Delta V_O$	$R_L = 8 \Omega$			$\pm 50$	mV
Output Power	$P_o$	$f = 1\text{kHz}$ THD=10%	$R_L = 16 \Omega$	100	110	mW
			$R_L = 8 \Omega$	190	200	mW
Total Harmonic Distortion	THD	$P_o = 0.1\text{W}$ , $R_L = 8 \Omega$ , $f = 1\text{kHz}$		0.5	1.0	%
Closed Loop Voltage Gain	$G_V$	$f = 1\text{kHz}$	37	39	41	dB
Input Resistance	$Z_i$	$f = 1\text{kHz}$	100			k $\Omega$
Input Noise Voltage	$V_{N1}$	$R_g = 10\text{k} \Omega$ BPF=20Hz~20kHz		3		$\mu\text{V}$
Ripple Rejection	RR	$f = 100\text{Hz}$		40		dB
Power Bandwidth	BW	$R_L = 8 \Omega$ , $P_o = 0.1\text{W}$		30		kHz

APPLICATION CIRCUIT

(1) YD2822A STEREO APPLICATION



(2) YD2822A BTL APPLICATION



OUTLINE DRAWING

DIP-8

unit:mm

