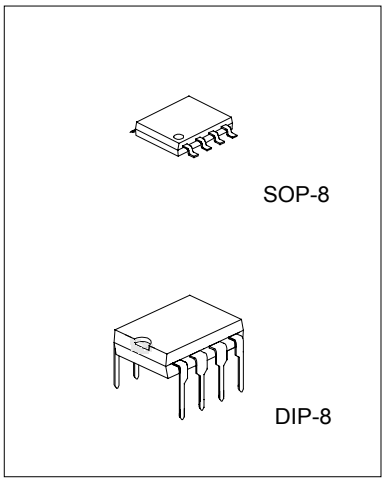
UTC TDA2822H LINEAR INTEGRATED CIRCUIT

DUAL LOW VOLTAGE POWER AMPLIFIER



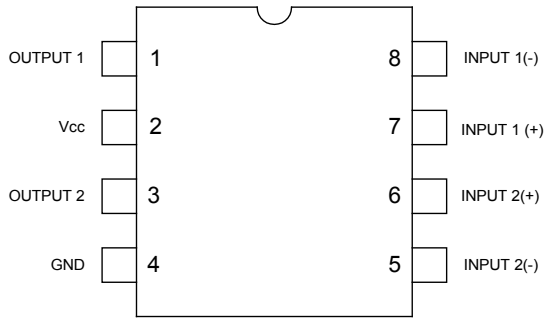
DESCRIPTION

The UTC TDA2822H is a monolithic integrated audio amplifier in a 8-Pin plastic dual in line package. It is designed for portable cassette players and radios.

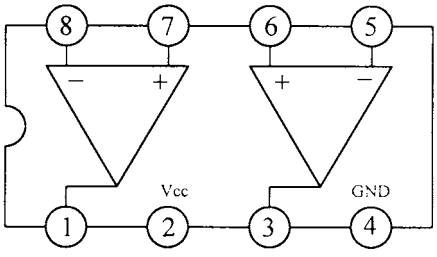
FEATURES

*Wide operating supply voltage:Vcc=1.8V~ 6V.
*Low crossover distortion.
*Low quiescent circuit current.
*Bridge/stereo configuration.

PIN CONFIGURATIONS



BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V_{CC}	15	V
Output Peak Current	I_O(peak)	1	A
Power Dissipation DIP-8	P_D	1.0 (T_{AMB}=50°C) 1.4 (T_{CASE}=50°C)	W
SOP-8		0.5 (T_{AMB}=50°C)	
Operating Temperature	T_J	+150	°C
Storage Temperature	Tstg	-40 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C, V_{CC}=4.5V, BTL parameter, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS			MIN	TYP	MAX	UNIT
Operating Supply Voltage	V_{CC}				1.8		6	V
Quiescent Circuit Current	I_{CCQ}	R_L=∝				6	9	mA
Output Offset Voltage	Vos	R_L=8Ω					±50	mV
Input Base Current	I_B					100		nA
Output Power	P_O	f=1kHz, THD=10%	R_L=32Ω	V_{CC}=6V	300	320		mW
				V_{CC}=4.5V		200		
				V_{CC}=3V	50	65		
				V_{CC}=2V		8		
			R_L=16Ω	V_{CC}=6V		600		
				V_{CC}=3V		120		
			R_L=8Ω	V_{CC}=4.5V		700		
				V_{CC}=3V		220		
			R_L=4Ω	V_{CC}=3V	200	350		
Total Harmonic Distortion	THD	Po=0.5W, R_L=8Ω, Po=1kHz				0.2		%
Closed Loop Voltage Gain	A_{VF}	f=1kHz				39		dB
Input Resistance	Zin	f=1kHz			100			kΩ
Total Input Noise	e_N	Rs=10kΩ	B=22Hz~22KHz			3		μV
Supply Voltage Rejection	SVR	f=100Hz				40		dB
Power Bandwidth	BWp	R_L=8Ω, Po=1W				120		kHz

APPLICATION CIRCUIT

Fig. 1: STEREO

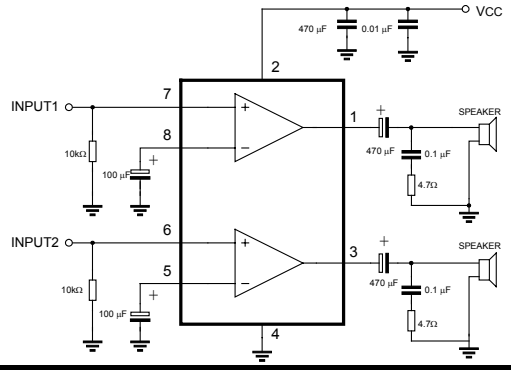
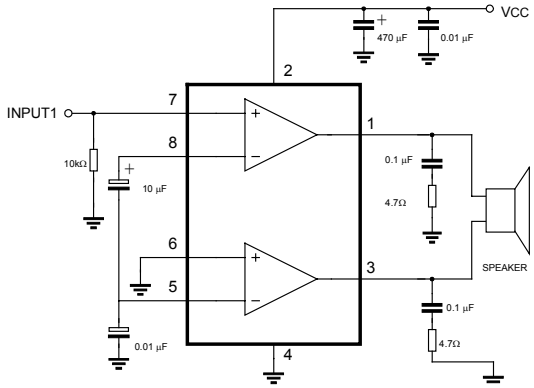


Fig. 2: BRIDGE


VCC
470 µF
0.01 µF
2
7
INPUT1
8
10kΩ
10 µF
1
0.1 µF
4.7Ω
6
5
3
SPEAKER
0.1 µF
4.7Ω
0.01 µF
4