

UTC2822H

LINEAR INTEGRATED CIRCUIT

DUAL LOW VOLTAGE POWER AMPLIFIER

DESCRIPTION

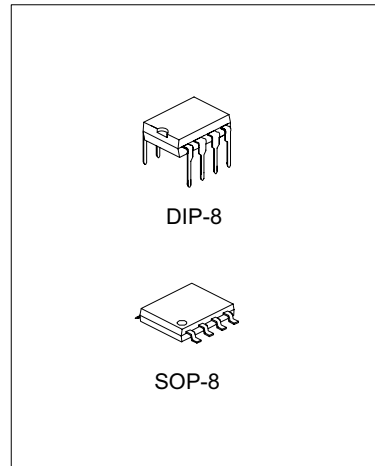
The UTC2822H is a monolithic integrated audio amplifier in a 8-pin DIP and SOP package. It is designed for portable cassette players and radios.

FEATURES

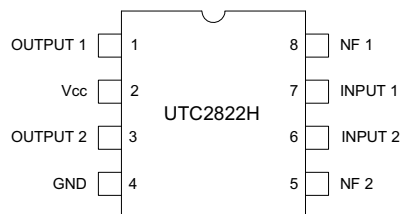
- * Wide operating supply voltage: $V_{cc}=1.8V-6V$
- * Low crossover distortion
- * Low quiescent circuit current
- * bridge/stereo configuration

ORDERING INFORMATION

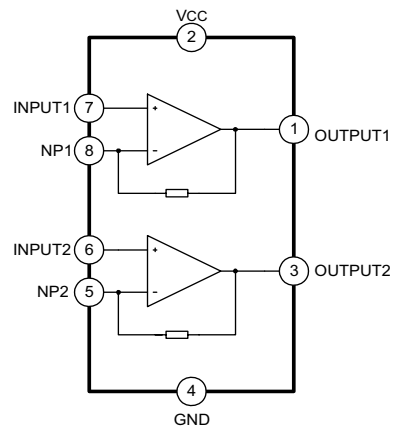
Device	Package
UTC2822	DIP-8-300-2.54
UTC2822E	SOP-8-225-1.27



PIN CONFIGURATION



BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

Characteristic	Symbol	Value	Unit
Supply Voltage	V _{CC}	9	V
Output Peak Current	I _{o(peak)}	1	A
Power Dissipation	P _D	at T _{amb} =50°C 1.0 at T _{case} =50°C 1.4	W
Operating Temperature	T _{opr}	-20~+70	°C
Storage Temperature	T _{stg}	-40~+150	°C

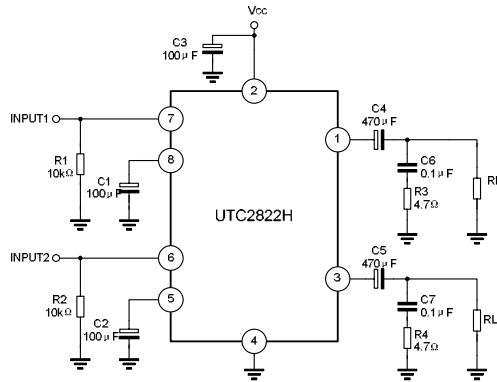
ELECTRICAL CHARACTERISTICS(T_a=25°C, V_{CC}=6V, f=1kHz, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Units
Operating Supply Voltage	V _{CC}		1.8		6	V
Quiescent Circuit Current	I _{CC}	V _i =0		6.5		mA
Closed Loop Voltage Gain	A _v	Stereo		40		dB
Closed Loop Voltage Gain	A _v	Bridge		40		dB
Channel Balance	CB	Stereo	-1	0	1	dB
Output Power	P _O	Stereo, V _{CC} =3V, R _L =8Ω, THD=10%		56		mW
Output Power	P _O	Stereo, V _{CC} =6V, R _L =8Ω, THD=10%		0.35		W
Output Power	P _O	Bridge, V _{CC} =6V, R _L =8Ω, THD=10%		0.7		W
Output Power	P _O	Bridge, V _{CC} =3V, R _L =8Ω, THD=10%		0.15		W
Total Harmonic Distortion	THD	Stereo, R _L =8Ω, P _o =0.5W		0.3		%
Total Harmonic Distortion	THD	Bridge, R _L =8Ω, P _o =0.5W		0.2		%
Ripple Rejection	RR	Stereo, f=100Hz, C ₃ =100μF	24	30		dB
Total Input Noise Voltage	V _{NI}	BW(-3dB)=20Hz~20kHz		3		μV
Cross Talk	CT	Stereo, f=1kHz		50		dB
Input Resistance	R _i		100			kΩ

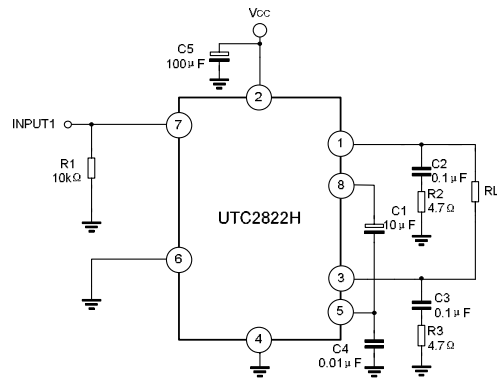
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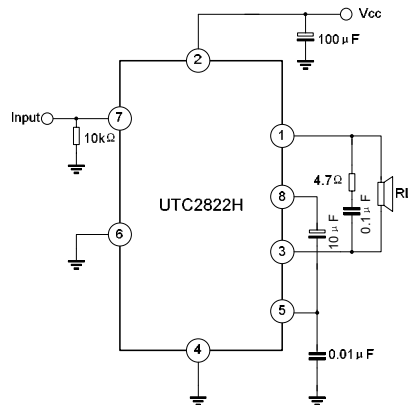
TEST CIRCUIT 1: STEREO



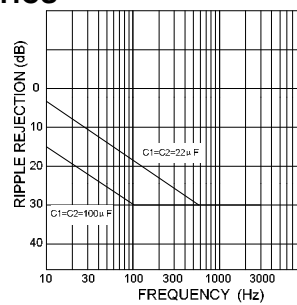
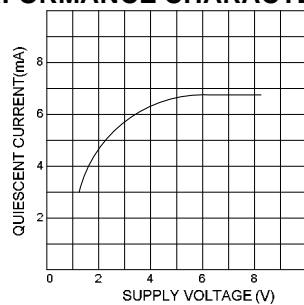
TEST CIRCUIT 2: BRIDGE



BTL APPLICATION CIRCUIT



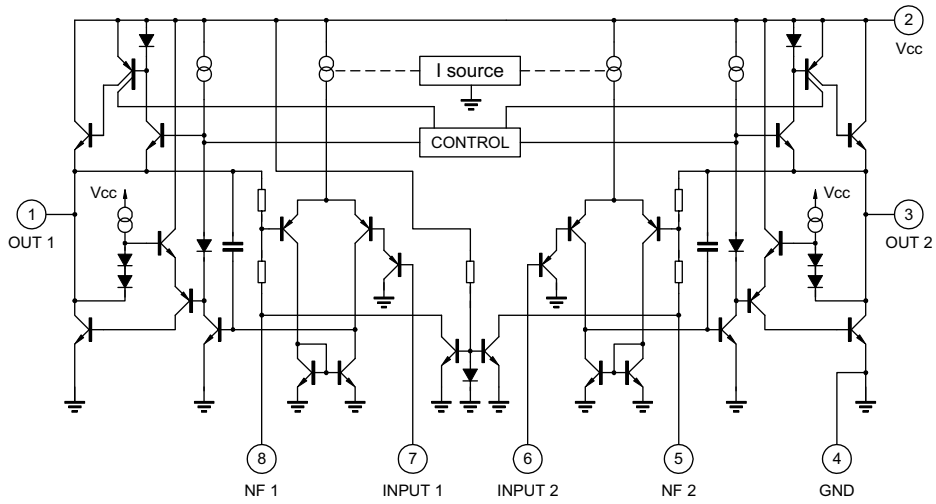
TYPICAL PERFORMANCE CHARACTERISTICS



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SCHEMATIC DIAGRAM



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PACKAGE OUTLINE

