

UTC2822

LINEAR INTEGRATED CIRCUIT

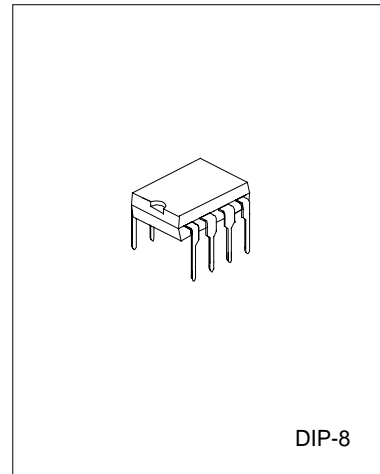
DUAL LOW VOLTAGE POWER AMPLIFIER

DESCRIPTION

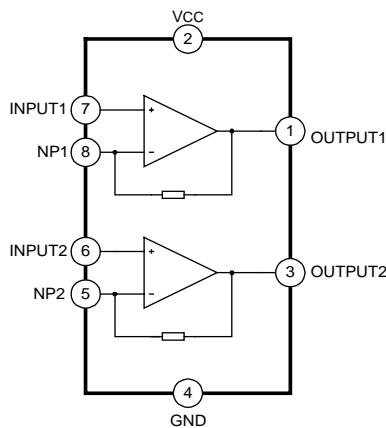
The UTC2822 is a monolithic integrated audio amplifier in a 8-Pin plastic Dual in line package. It is designed for portable cassette players and radios.

FEATURES

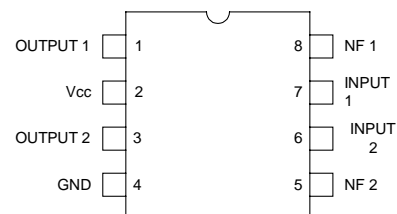
- *Wide operating supply voltage: $V_{CC}=1.8V-12V$
- *Low crossover distortion
- *Low quiescent circuit current
- *bridge/stereo configuration



BLOCK DIAGRAM



PIN CONFIGURATION



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

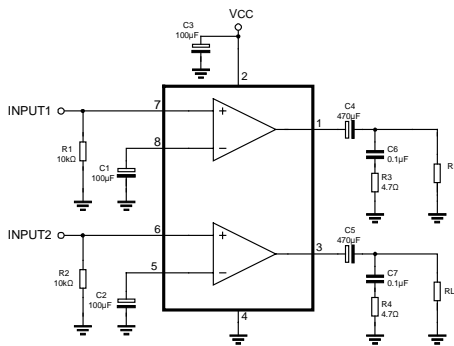
Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	15	V
Output Peak Current	$I_o(\text{peak})$	1	A
Power Dissipation	P_D	at $T_{amb}=50^{\circ}C$ 1.0 at $T_{case}=50^{\circ}C$ 1.4	W
Operating Temperature	T_{opr}	-20~+70	$^{\circ}C$
Storage Temperature	T_{stg}	-40~+150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS

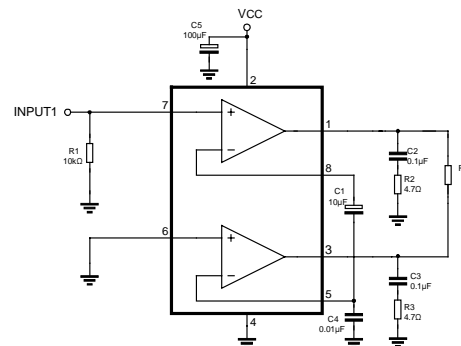
(Ta=25°C, Vcc=6V, f=1kHz, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Units
Operating Supply Voltage	Vcc		1.8		9	V
Quiescent Circuit Current	Icc	Vi=0		9		mA
Closed Loop Voltage Gain	Av	Stereo		40		dB
Closed Loop Voltage Gain	Av	Bridge		40		dB
Channel Balance	CB	Stereo	-1	0	1	dB
Output Power	Po	Stereo, Vcc=6V, RL=4Ω, THD=10%	0.4	0.65		W
Output Power	Po	Stereo, Vcc=3V, RL=4Ω, THD=10%		0.11		W
Output Power	Po	Bridge, Vcc=6V, RL=4Ω, THD=10%	0.9	1.35		W
Output Power	Po	Bridge, Vcc=3V, RL=4Ω, THD=10%		0.35		W
Total Harmonic Distortion	THD	Stereo, RL=8Ω, Po=0.2W		0.5		%
Total Harmonic Distortion	THD	Bridge, RL=8Ω, Po=0.5W		0.5		%
Ripple Rejection	RR	Stereo, f=100Hz, C3=100μF	24	30		dB
Output Noise Voltage	VNO	Stereo, BW(-3dB)=20Hz~20kHz		0.5	2.0	mV
Cross Talk	CT	Stereo, f=1kHz		50		dB
Input Resistance	Ri		100			kΩ

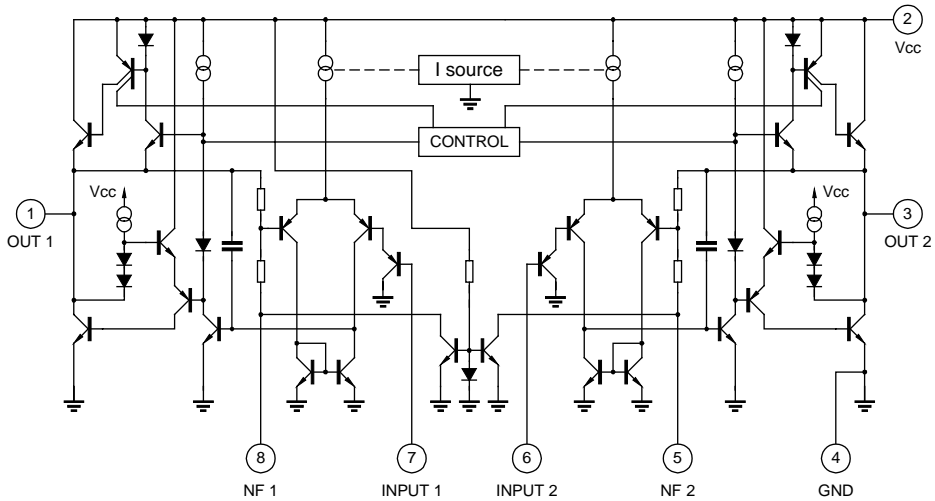
TEST CIRCUIT 1: STEREO



TEST CIRCUIT 2: BRIDGE



SCHEMATIC DIAGRAM



TYPICAL PERFORMANCE CHARACTERISTICS

