

UTC2822D/E

LINEAR INTEGRATED CIRCUIT

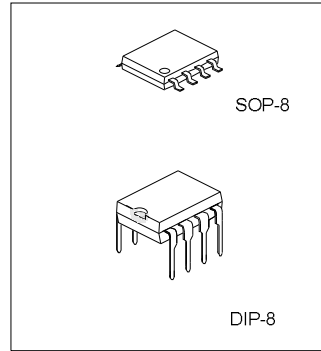
DUAL LOW VOLTAGE POWER AMPLIFIER

DESCRIPTION

The UTC2822D/E is a monolithic integrated audio amplifier in a 8-pin DIP and SOP package. It is designed for portable cassette players and radios.

FEATURES

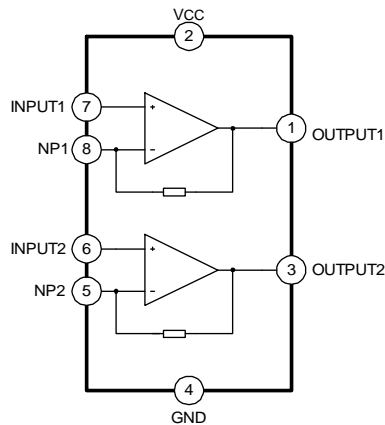
- *Wide operating supply voltage: Vcc=1.8V- 12V
- *Low crossover distortion
- *Low quiescent circuit current
- *bridge/stereo configuration



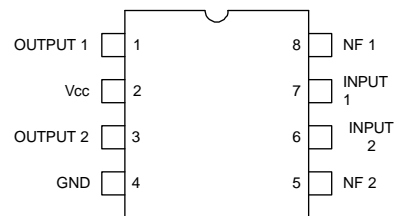
ORDERING INFORMATION

Device	Package
UTC2822D	DIP-8-300-2.54
UTC2822E	SOP-8-225-1.27

BLOCK DIAGRAM



PIN CONFIGURATION



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

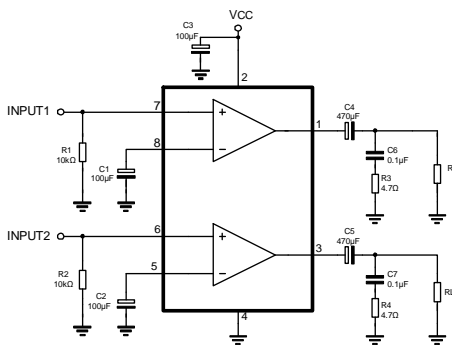
Characteristic	Symbol	Value	Unit
Supply Voltage	Vcc	15	V
Output Peak Current	Io(peak)	1	A
Power Dissipation	Pd	at Tamb=50°C 1.0 at Tcase=50°C 1.4	W
Operating Temperature	Topr	-20~+70	°C
Storage Temperature	Tstg	-40~+150	°C

ELECTRICAL CHARACTERISTICS

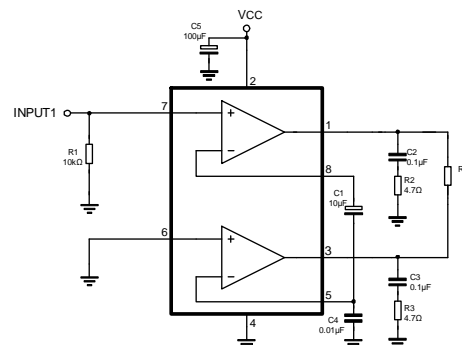
(Ta=25°C, Vcc=6V, f=1kHz, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Units
Operating Supply Voltage	Vcc		1.8		12	V
Quiescent Circuit Current	Icc	Vi=0		6	9	mA
Quiescent Output Voltage	Vo	Stereo		2.7		V
Input Bias Current	I _{BA}	Stereo		100		nA
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	Po	Stereo, Vcc=6V, RL=4Ω, THD=10%	0.4	0.65		W
		Stereo, Vcc=9V, RL=4Ω, THD=10%		1.48		
Output Power	Po	Stereo, Vcc=3V, RL=4Ω, THD=10%		0.11		W
Output Power	Po	Bridge, Vcc=6V, RL=8Ω, THD=10%	0.9	1.25		W
Output Power	Po	Bridge, Vcc=3V, RL=4Ω, THD=10%		0.35		W
Output Power	Po	Bridge, Vcc=9V, RL=8Ω, THD=10%		3		W
Total Harmonic Distortion	THD	Stereo, RL=8Ω, Po=0.2W		0.3		%
Total Harmonic Distortion	THD	Bridge, RL=8Ω, Po=0.5W		0.3		%
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

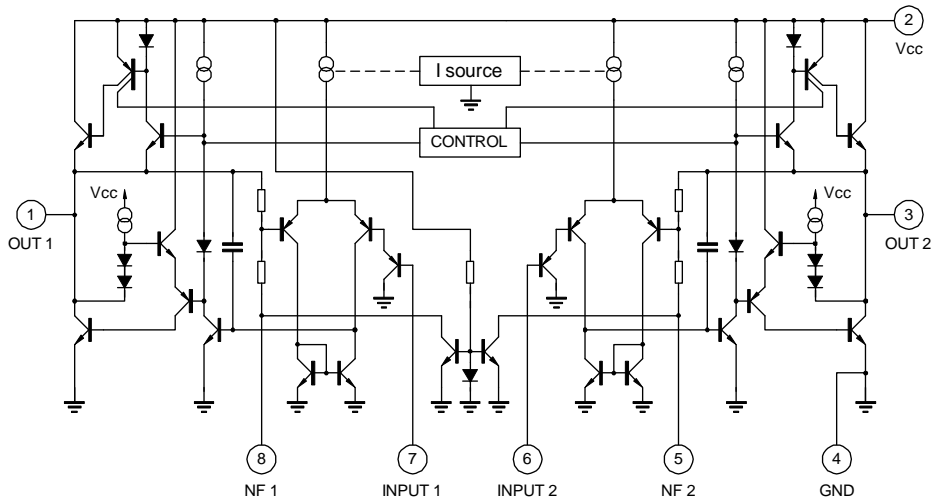
TEST CIRCUIT 1:STEREO



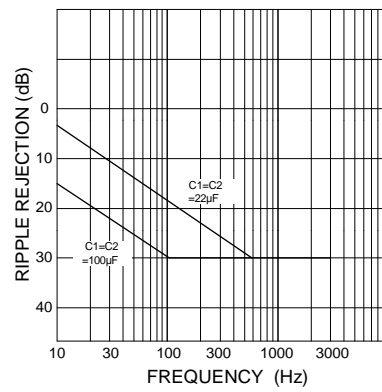
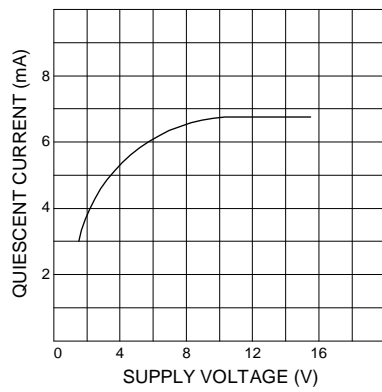
TEST CIRCUIT 2:BRIDGE



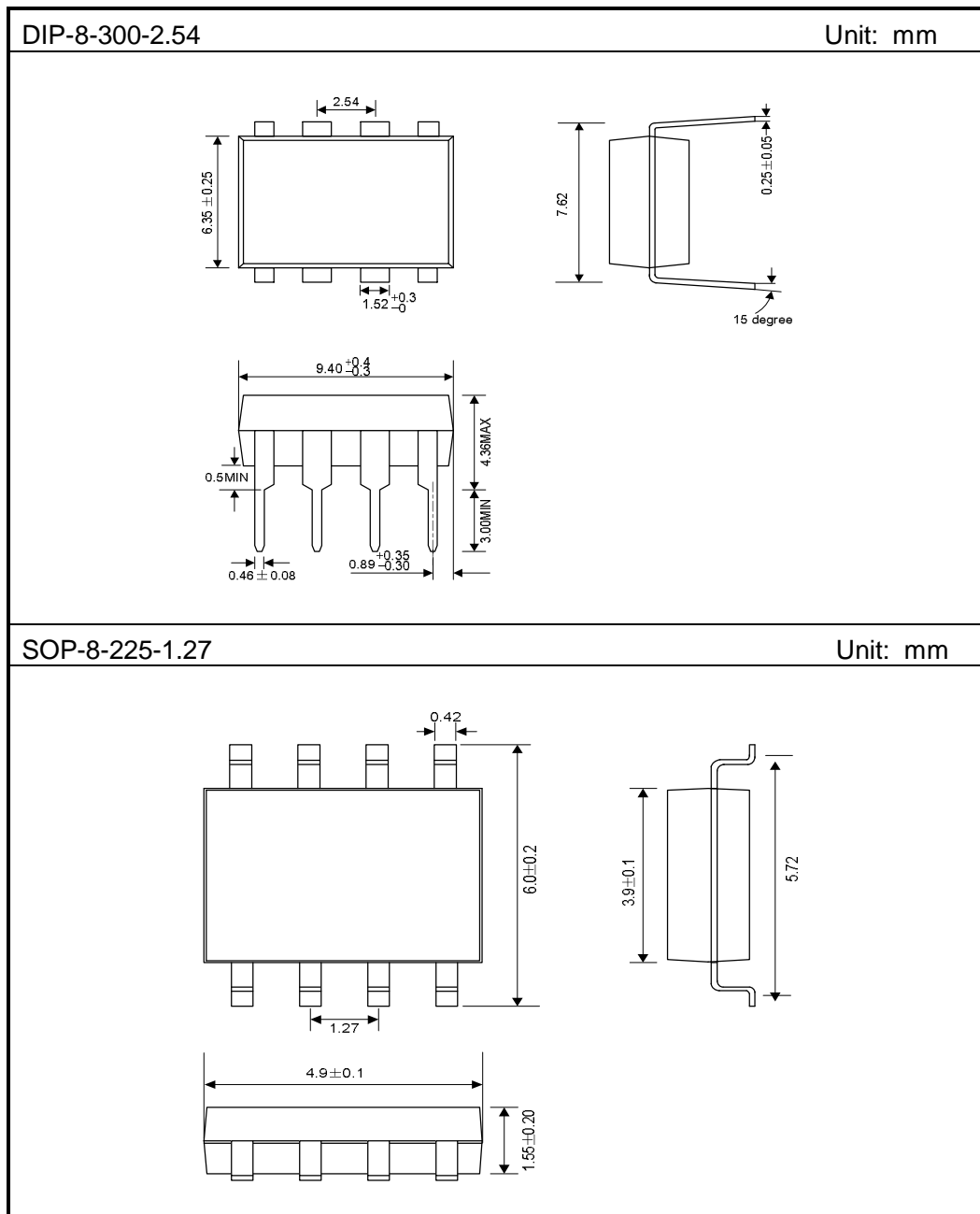
SCHEMATIC DIAGRAM



TYPICAL PERFORMANCE CHARACTERISTICS



PACKAGE DIMENSIONS



Attach

Revision History

Data	REV	Description	Page
	1.0	Original	
2004.09.10	1.1	Chage"Operating Supply Voltage" from 9V to 12V	2
		Add "Output Power Vcc=9V"	2
2004.09.13	1.2	Add" Ordering information"	1
		Add"DIP-8-300-2.54、SOP-14-225-1.27"Package out line	4
2005.3.18	1.3	Revise"DIP-8-300-2.54、SOP-14-225-1.27"Package out line	5
2006.09.29	1.4	Revise" Ordering information"	1
2012.1.11	1.5	Revise" ELECTRICAL CHARACTERISTICS"	2