



# TDA2822

## LINEAR INTEGRATED CIRCUIT

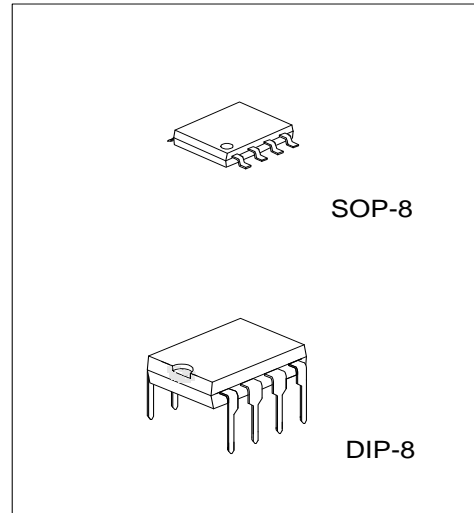
### DUAL LOW VOLTAGE POWER AMPLIFIER

#### ■ DESCRIPTION

The UTC **TDA2822** 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.

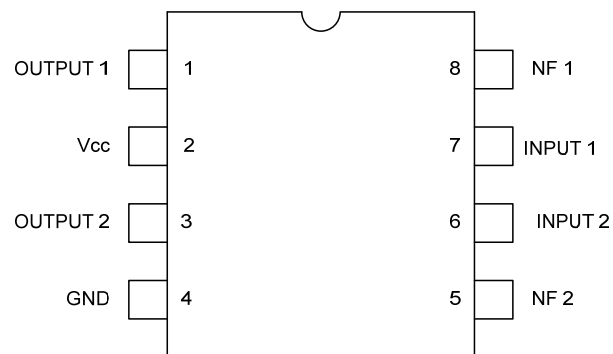


\*Pb-free plating product number: TDA2822L

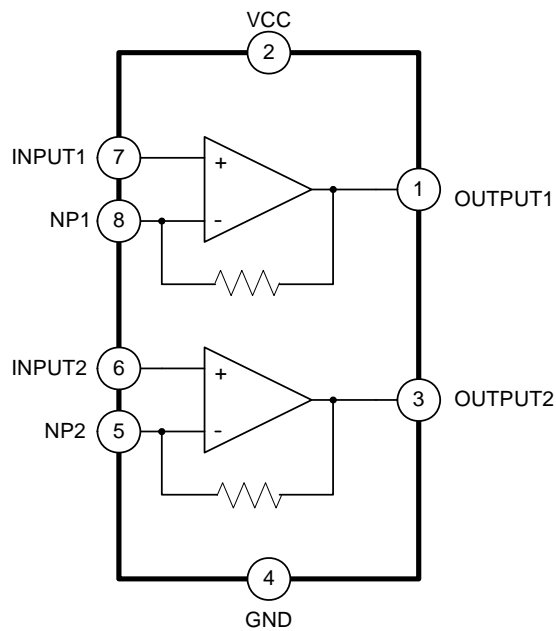
#### ■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead Free Plating		
TDA2822-S08-R	TDA2822L-S08-R	SOP-8	Tape Reel
TDA2822-S08-T	TDA2822L-S08-T	SOP-8	Tube
TDA2822-D08-T	TDA2822L-D08-T	DIP-8	Tube

### ■ PIN CONFIGURATIONS



### ■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sub>CC</sub>	15	V
Output Peak Current	I <sub>O(peak)</sub>	1	A
Power Dissipation	P <sub>D</sub>	DIP-8	1.0
		SOP-8	0.5
Operating Temperature	T <sub>OPR</sub>	-20~+85	°C
Storage Temperature	T <sub>STG</sub>	-40~+150	°C

Note:1. Absolute maximum ratings are stress ratings only and functional device operation is not implied. The device could be damaged beyond Absolute maximum ratings.

2. The device is guaranteed to meet performance specifications within 0°C~70°C operating temperature range and assured by design from -20°C~ 85°C

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, V<sub>CC</sub>=6V, f=1kHz, unless otherwise specified)

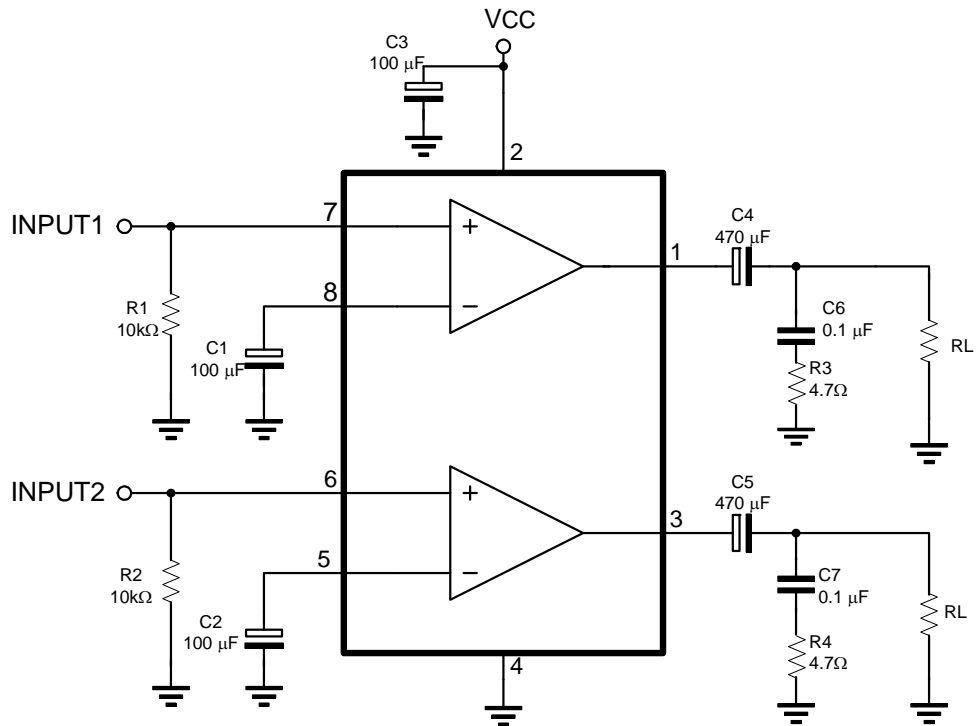
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Operating Supply Voltage	V <sub>CC</sub>		1.8		12	V	
Quiescent Circuit Current	I <sub>CC</sub>	V <sub>IN</sub> =0		9		mA	
Closed Loop Voltage Gain	G <sub>Vc</sub>			Stereo	40	dB	
				Bridge	40	dB	
Channel Balance	CB	Stereo	-1	0	1	dB	
Output Power(Stereo)	P <sub>OUT</sub>	V <sub>CC</sub> =6V, R <sub>L</sub> =4Ω, THD=10%		DIP-8	0.4	0.65	W
				SOP-8	0.28	0.45	
		V <sub>CC</sub> =3V, R <sub>L</sub> =4Ω, THD=10%		DIP-8		0.11	W
				SOP-8		0.07	
Output Power (Bridge)	P <sub>OUT</sub>	V <sub>CC</sub> =6V, R <sub>L</sub> =4Ω, THD=10%		DIP-8	0.9	1.35	W
				SOP-8	0.63	0.94	
		V <sub>CC</sub> =3V, R <sub>L</sub> =4Ω, THD=10%		DIP-8		0.35	W
				SOP-8		0.24	
Total Harmonic Distortion	THD	R <sub>L</sub> =8Ω, P <sub>OUT</sub> =0.2W		Stereo	0.5	%	
				Bridge	0.5	%	
Ripple Rejection	RR	Stereo, f=100Hz, C3=100μF	24	30		dB	
Output Noise Voltage	eN	Stereo, BW(-3dB)=20Hz ~20kHz		0.5	2.0	mV	
Cross Talk	C <sub>T</sub>	Stereo, f=1kHz		50		dB	
Input Resistance	R <sub>IN</sub>		100			kΩ	

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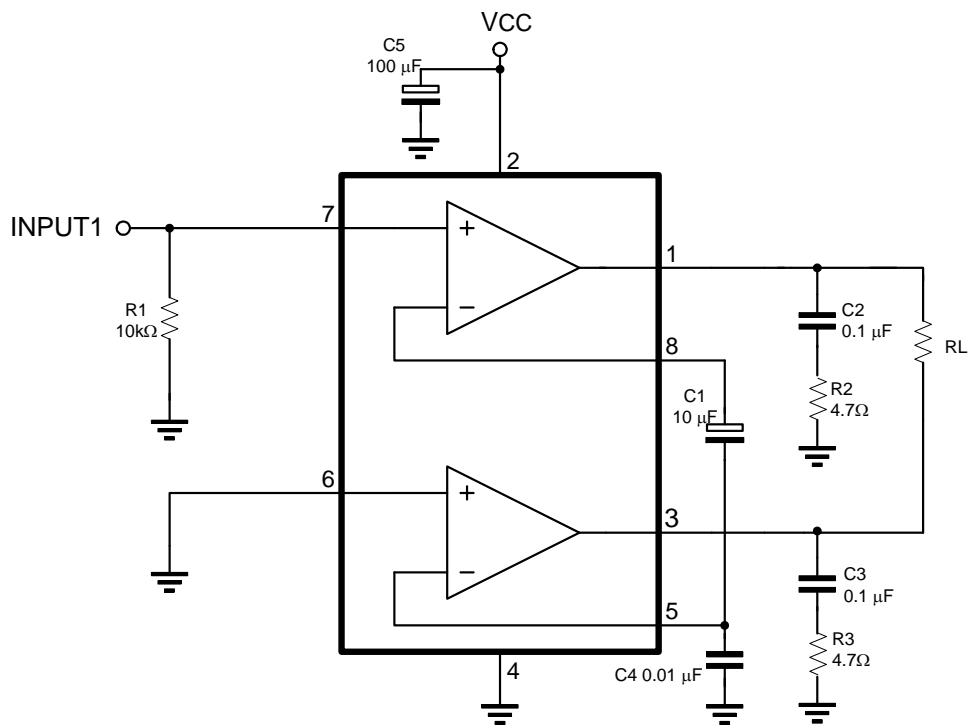
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### ■ TEST CIRCUIT

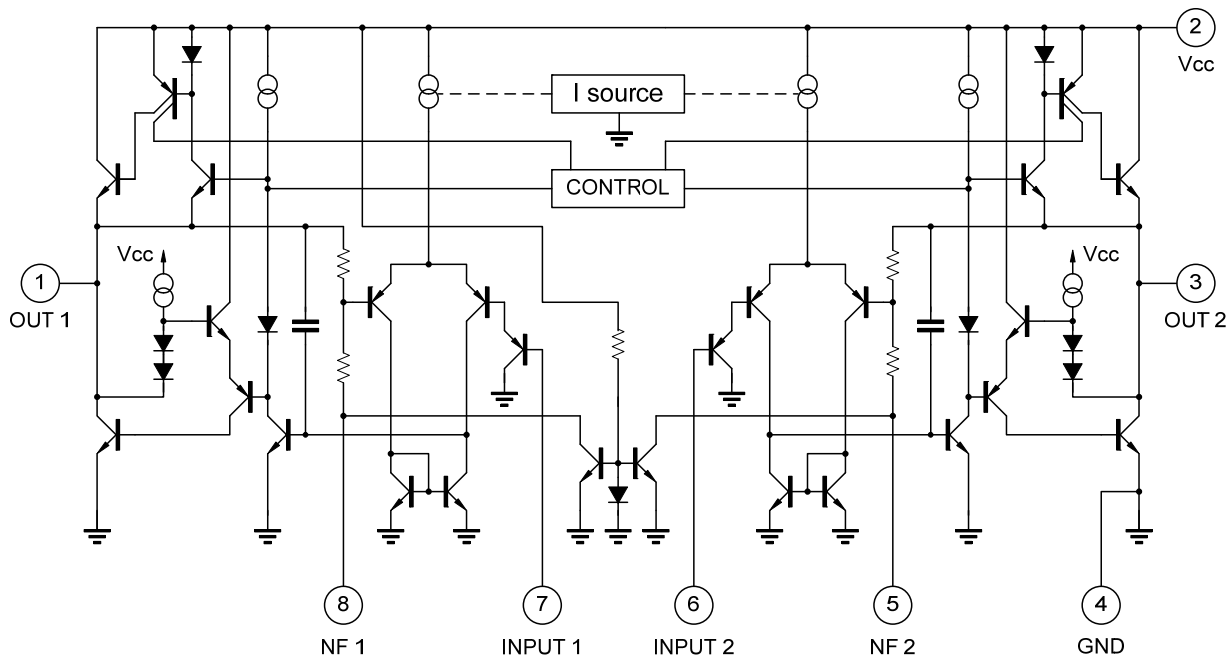
STEREO



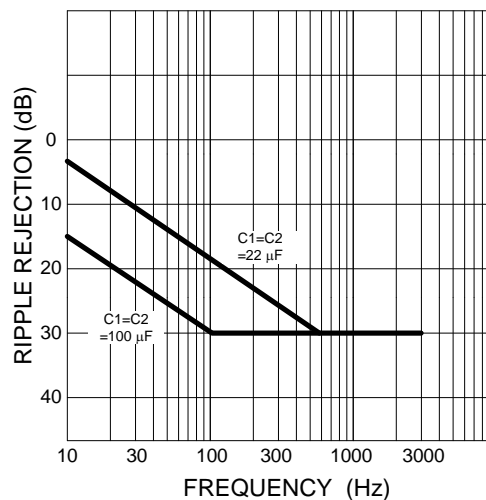
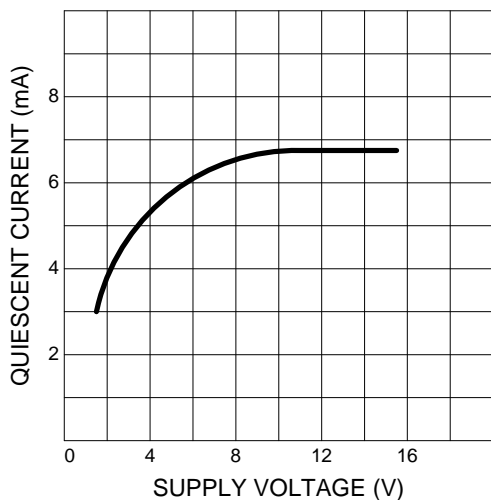
BRIDGE



### ■ SCHEMATIC DIAGRAM



### ■ TYPICAL CHARACTERISTICS



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