

## TDA2822

### LINEAR INTEGRATED CIRCUIT

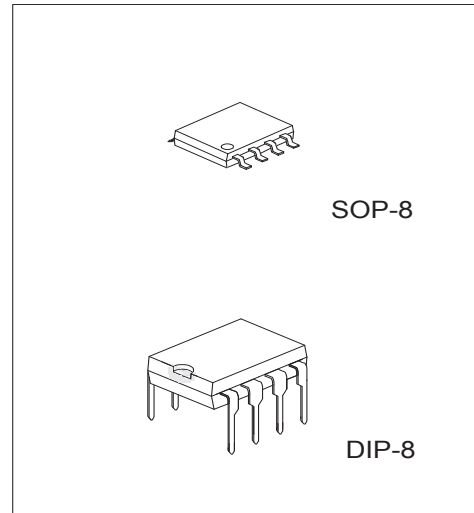
## DUAL LOW VOLTAGE POWER AMPLIFIER

### DESCRIPTION

The UTC **TDA2822** is a monolithic integrated audio amplifier in a 8-Pin plastic dual in line package. It is designed for portable media players and radios.

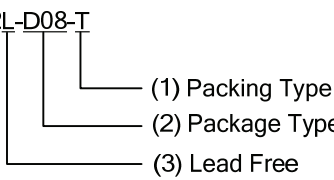
### FEATURES

- \* Wide Operating Supply Voltage:  $V_{CC}=1.8V - 12V$ .
- \* Low Crossover Distortion.
- \* Low Quiescent Circuit Current.
- \* Bridge/Stereo Configuration.



### ORDERING INFORMATION

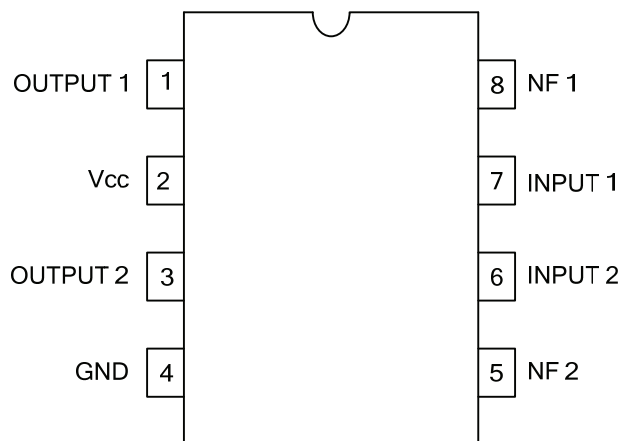
Ordering Number		Package	Packing
Lead Free	Halogen Free		
TDA2822L-S08-R	TDA2822G-S08-R	SOP-8	Tape Reel
TDA2822L-S08-T	TDA2822G-S08-T	SOP-8	Tube
TDA2822L-D08-T	TDA2822G-D08-T	DIP-8	Tube

<p>TDA2822L-D08-T</p>  <p>(1) Packing Type (2) Package Type (3) Lead Free</p>	<p>(1) R: Tape Reel, T: Tube (2) D08: DIP-8, S08: SOP-8 (3) G: Halogen Free, L: Lead Free</p>
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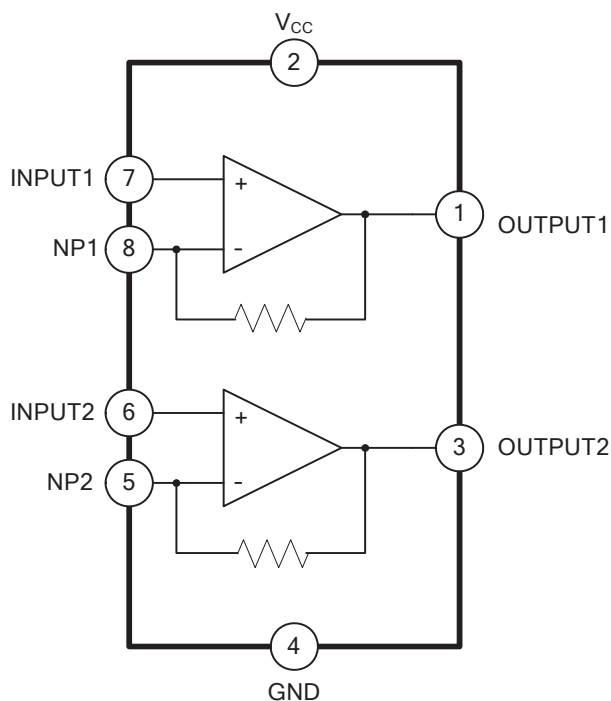
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#### ■ PIN CONFIGURATIONS



#### ■ BLOCK DIAGRAM



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#### ■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=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	DIP-8	P <sub>D</sub>	W
	SOP-8		
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 (T<sub>A</sub>=25°C, V<sub>CC</sub>=6V, f=1kHz, unless otherwise specified)

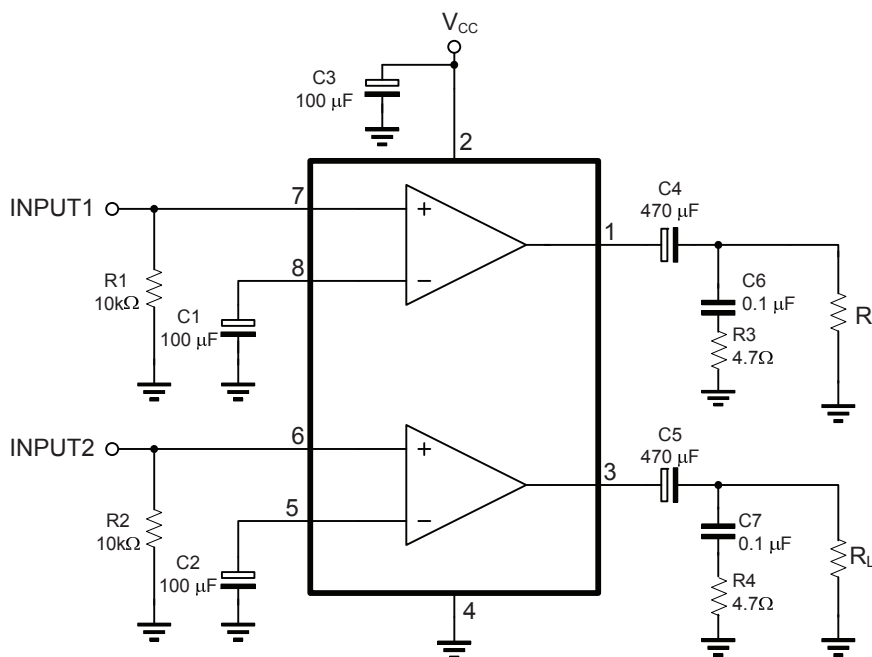
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Operating Supply Voltage	V <sub>CC</sub>		1.8		12	V	
Quiescent Circuit Current	I <sub>CC</sub>	V <sub>IN</sub> =0		9		mA	
Closed Loop Voltage Gain	G <sub>VC</sub>	Stereo		40		dB	
				Bridge	40		
Channel Balance	CB	Stereo	-1	0	1	dB	
Output Power(Stereo)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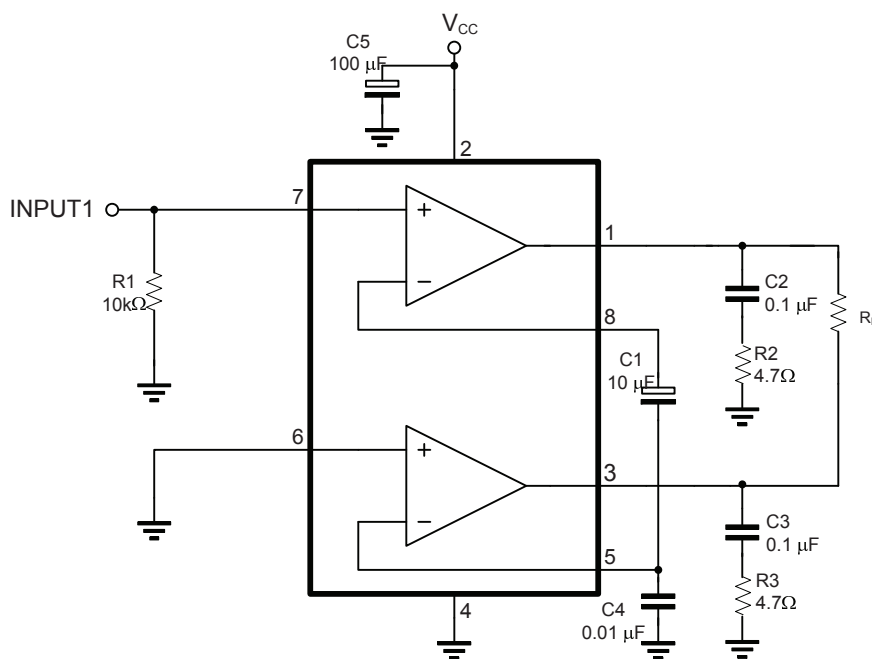
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#### ■ TEST CIRCUIT

#### STEREO



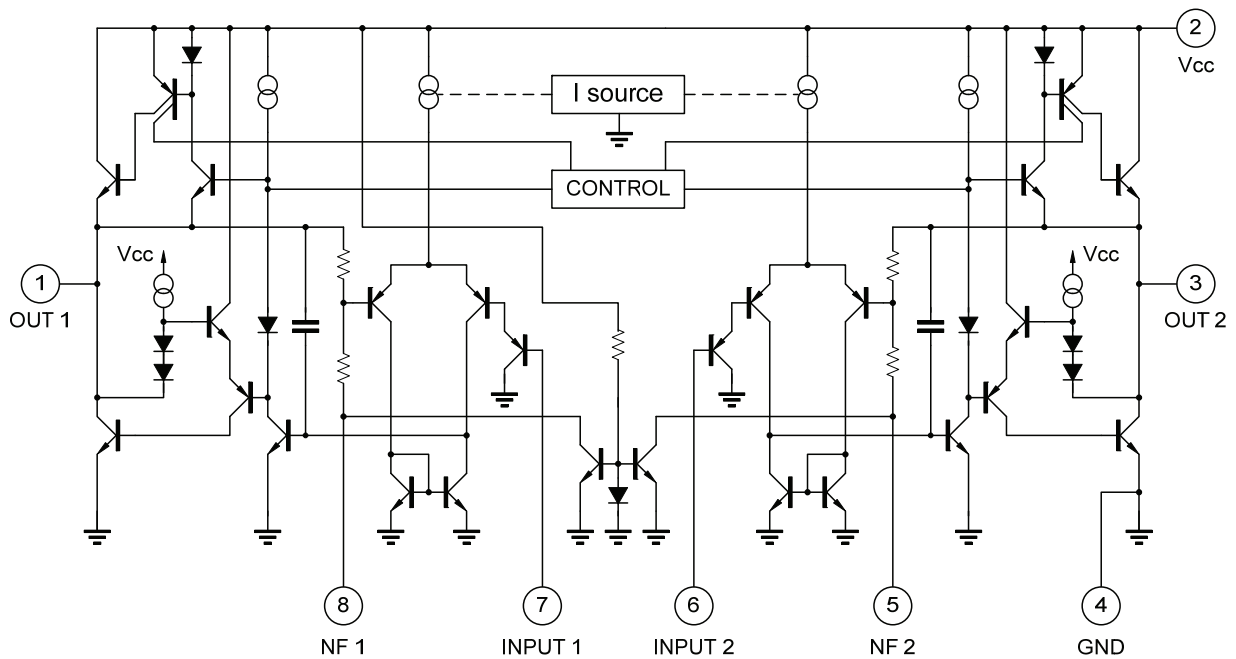
#### BRIDGE



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#### ■ SCHEMATIC DIAGRAM



#### ■ TYPICAL CHARACTERISTICS

