



## TDA2822

## LINEAR INTEGRATED CIRCUIT

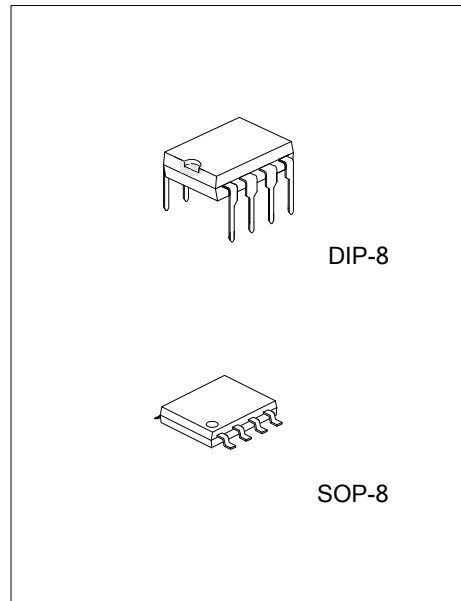
### DUAL LOW VOLTAGE POWER AMPLIFIER

#### 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.



#### ORDERING INFORMATION

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

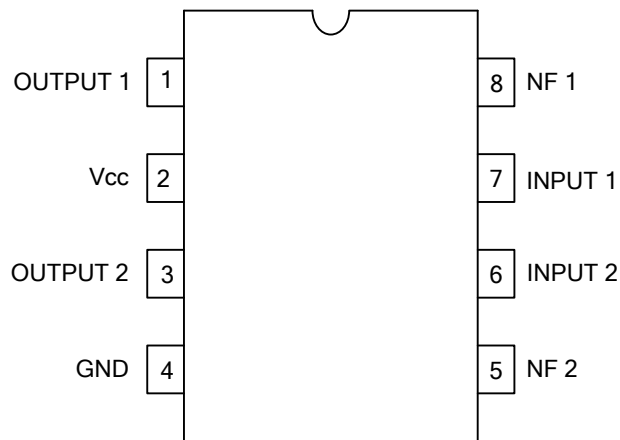
<p>TDA2822G-D08-T</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Green Package</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) D08: DIP-8, S08: SOP-8</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING

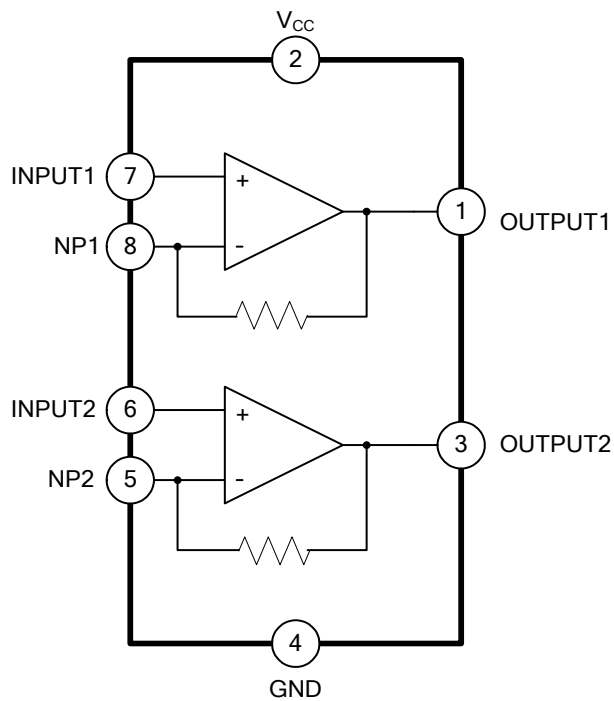
DIP-8	SOP-8
<p>8 7 6 5 → Date Code</p> <p>UTC □ □ □ □</p> <p>TDA2822 □</p> <p>□ □ □ → Lot Code</p> <p>1 2 3 4</p> <p>L: Lead Free</p> <p>G: Halogen Free</p>	<p>8 7 6 5 → Date Code</p> <p>UTC □ □ □ □</p> <p>TDA2822 □</p> <p>● □ □ □ → Lot Code</p> <p>1 2 3 4</p> <p>L: Lead Free</p> <p>G: Halogen Free</p>



### ■ PIN CONFIGURATIONS



### ■ BLOCK DIAGRAM



■ **ABSOLUTE MAXIMUM RATINGS** ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	$V_{CC}$	15	V
Output Peak Current	$I_{O(PEAK)}$	1	A
Power Dissipation	DIP-8	1.0	W
	SOP-8	0.5	
Operating Temperature	$T_{OPR}$	-20~+85	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-40~+150	$^{\circ}\text{C}$

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.

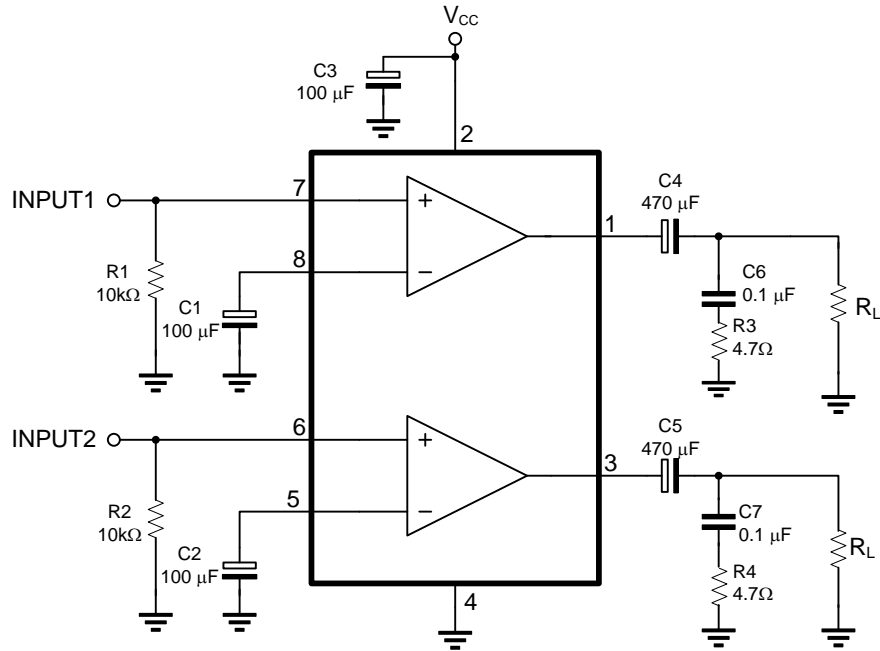
2. The device is guaranteed to meet performance specifications within  $0^{\circ}\text{C}\sim 70^{\circ}\text{C}$  operating temperature range and assured by design from  $-20^{\circ}\text{C}\sim 85^{\circ}\text{C}$

■ **ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$ ,  $V_{CC}=6\text{V}$ ,  $f=1\text{kHz}$ , unless otherwise specified)

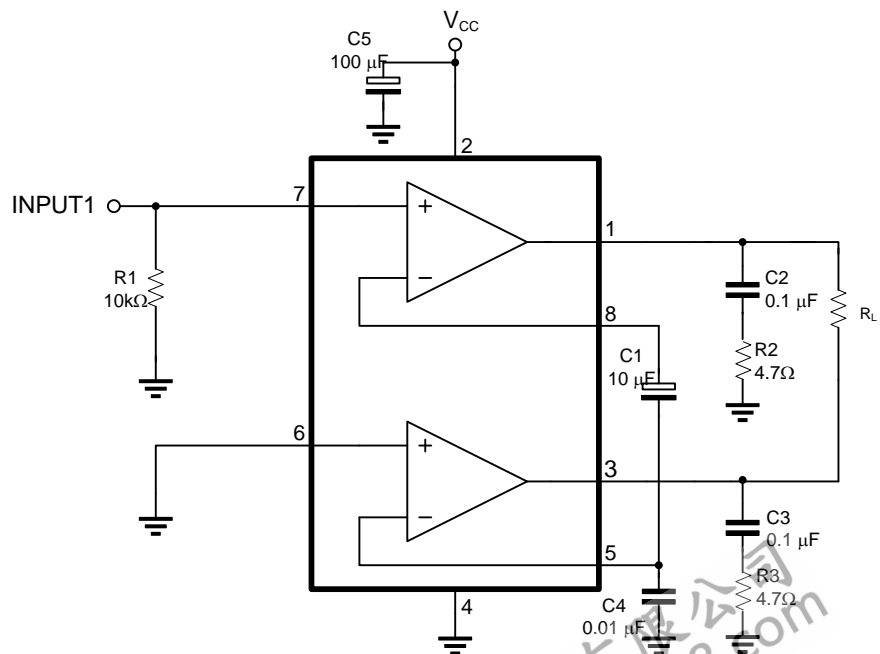
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Operating Supply Voltage	$V_{CC}$		1.8		12	V	
Quiescent Circuit Current	$I_{CC}$	$V_{IN}=0$		9		mA	
Closed Loop Voltage Gain	Stereo Bridge	$G_{VC}$		40		dB	
				40		dB	
Channel Balance	CB	Stereo	-1	0	1	dB	
Output Power(Stereo)	DIP-8	$P_{OUT}$	$V_{CC}=6\text{V}, R_L=4\Omega, THD=10\%$	0.4	0.65		W
	SOP-8			0.28	0.45		
	DIP-8	$P_{OUT}$	$V_{CC}=3\text{V}, R_L=4\Omega, THD=10\%$		0.11		W
	SOP-8				0.07		
Output Power (Bridge)	DIP-8	$P_{OUT}$	$V_{CC}=6\text{V}, R_L=4\Omega, THD=10\%$	0.9	1.35		W
	SOP-8			0.63	0.94		
	DIP-8	$P_{OUT}$	$V_{CC}=3\text{V}, R_L=4\Omega, THD=10\%$		0.35		W
	SOP-8				0.24		
Total Harmonic Distortion	Stereo Bridge	THD	$R_L=8\Omega, P_{OUT}=0.2\text{W}$		0.5		%
			$R_L=8\Omega, P_{OUT}=0.5\text{W}$		0.5		%
Ripple Rejection	RR	Stereo, $f=100\text{Hz}, C_3=100\mu\text{F}$	24	30		dB	
Output Noise Voltage	eN	Stereo, $BW(-3\text{dB})=20\text{Hz}\sim 20\text{kHz}$		0.5	2.0	mV	
Cross Talk	$C_T$	Stereo, $f=1\text{kHz}$		50		dB	
Input Resistance	$R_{IN}$		100			$\text{k}\Omega$	

### TEST CIRCUIT

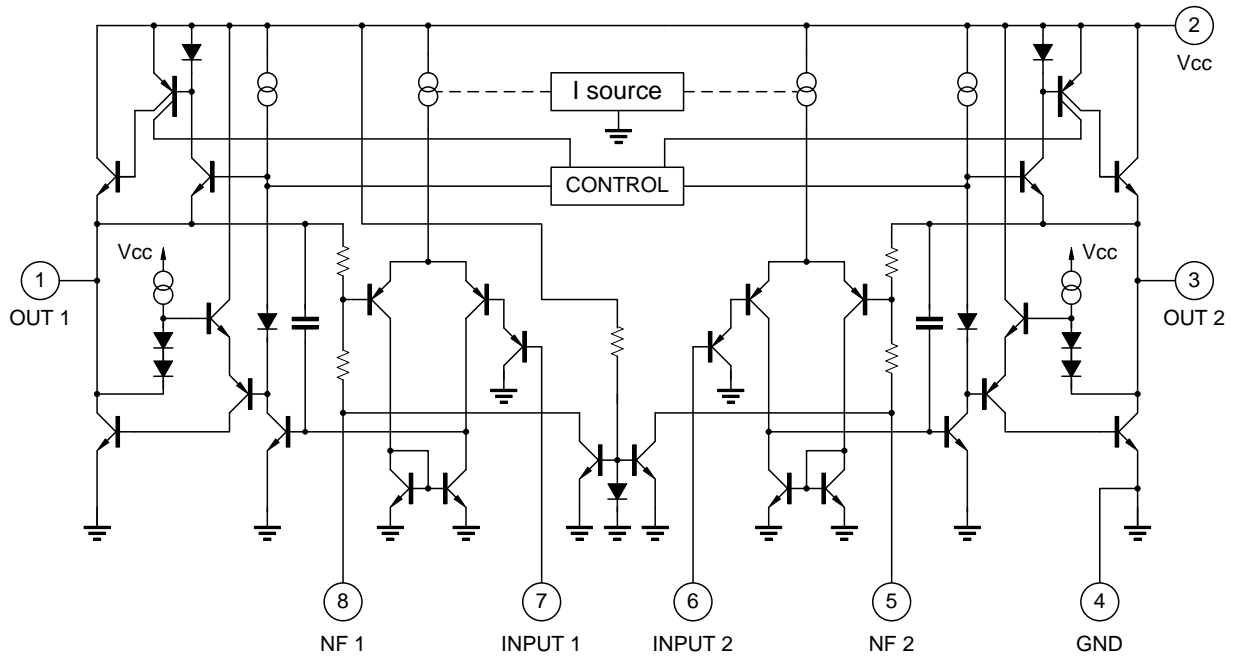
#### STEREO



#### BRIDGE

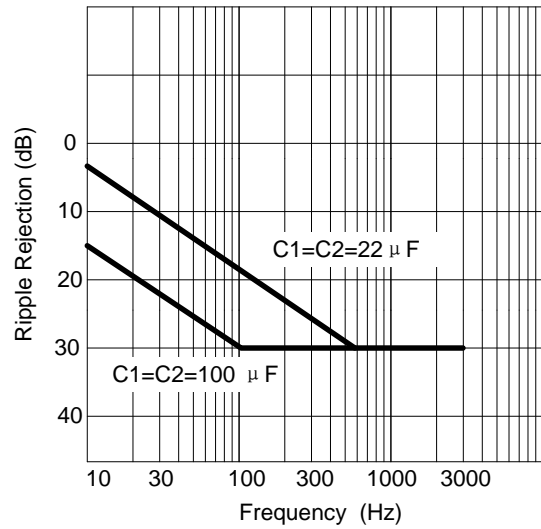
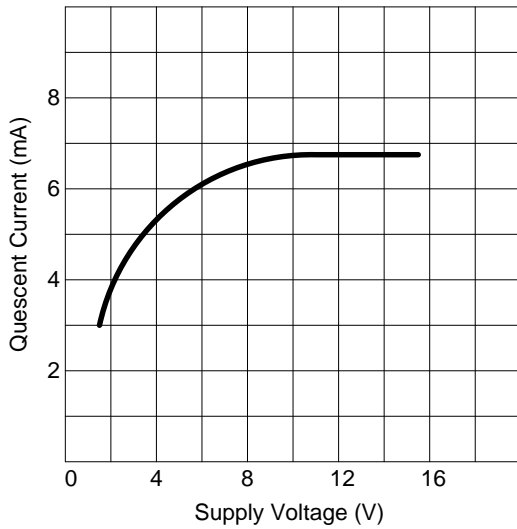


## ■ SCHEMATIC DIAGRAM



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### ■ TYPICAL CHARACTERISTICS



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