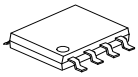
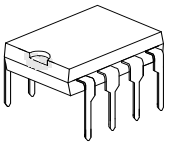
TDA2822

LINEAR INTEGRATED CIRCUIT

DUAL LOW VOLTAGE POWER AMPLIFIER



SOP-8



DIP-8

■ 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

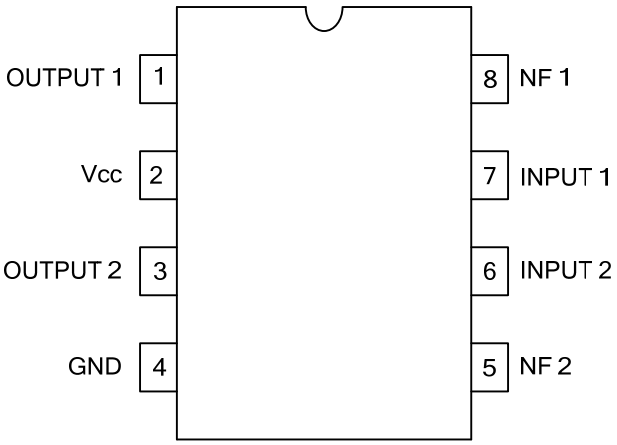
* Wide Operating Supply Voltage: V_{CC}=1.8V - 12V.
* Low Crossover Distortion.
* Low Quiescent Circuit Current.
* Bridge/Stereo Configuration.

■ ORDERING INFORMATION

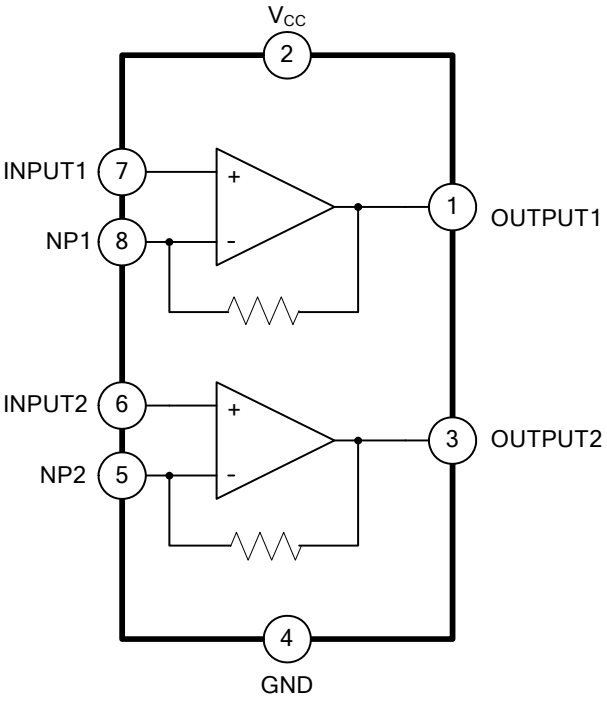
Ordering Number		Package	Packing
Lead Free	Halogen Free		
TDA2822L-S08-R	TDA2822G-S08-R	SOP-8	Tape Reel
TDA2822L-S08-T	TDA2822G-S08-T	SOP-8	Tube
TDA2822L-D08-T	TDA2822G-D08-T	DIP-8	Tube

TDA2822L-D08-T (1) Packing Type (2) Package Type (3) Lead Free	(1) R: Tape Reel, T: Tube (2) D08: DIP-8, S08: SOP-8 (3) G: Halogen Free, L: Lead Free

■ PIN CONFIGURATIONS



■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

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

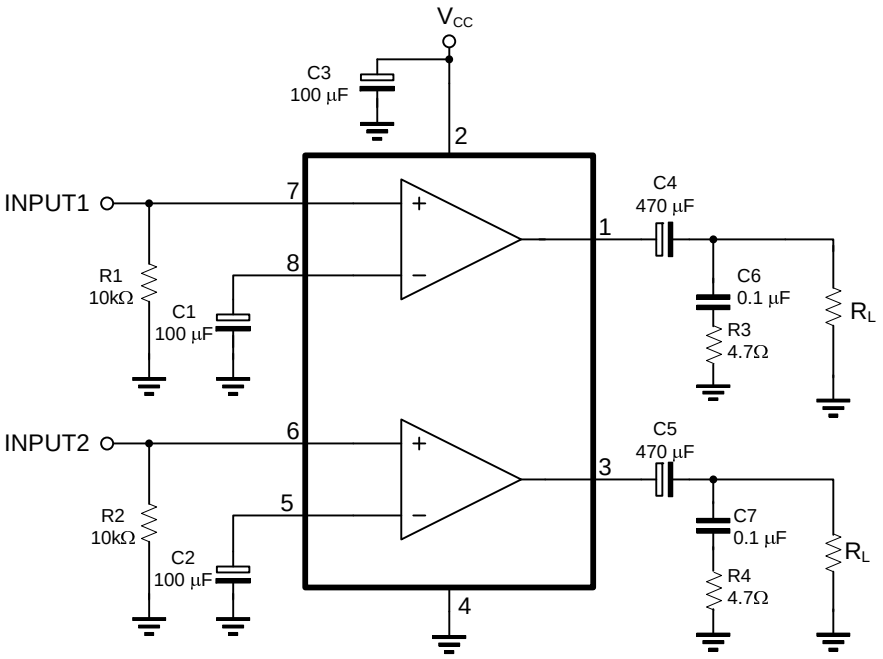
2. The device is guaranteed to meet performance specifications within 0℃~70℃ operating temperature range and assured by design from -20℃~ 85℃

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, V_{CC}=6V, f=1kHz, unless otherwise specified)

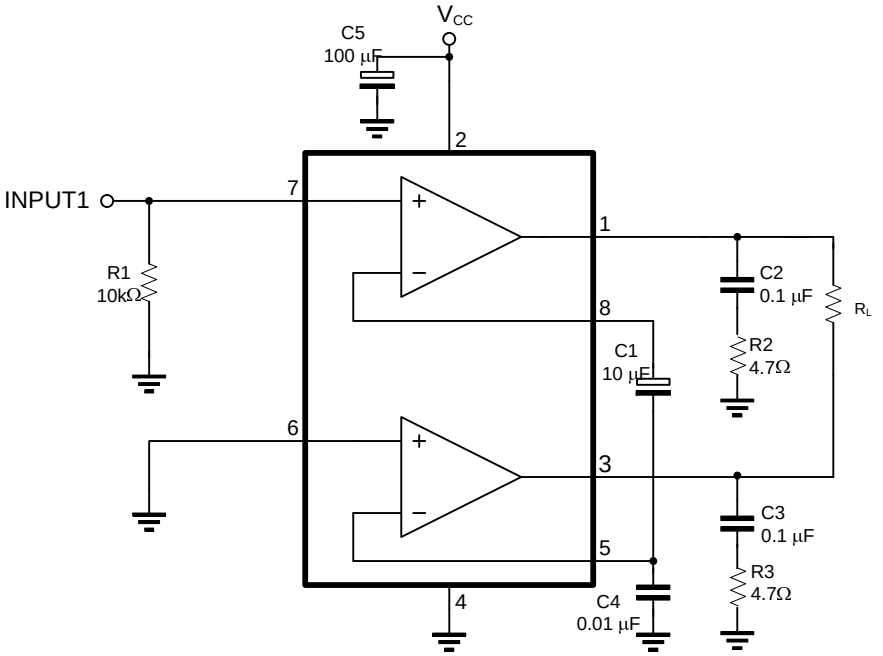
PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Supply Voltage		V_{CC}		1.8		12	V
Quiescent Circuit Current		I_{CC}	V_{IN}=0		9		mA
Closed Loop Voltage Gain	Stereo	G_{VC}			40		dB
	Bridge				40		dB
Channel Balance		CB	Stereo	-1	0	1	dB
Output Power(Stereo)	DIP-8	P_{OUT}	V_{CC}=6V,R_L=4Ω, THD=10%	0.4	0.65		W
	SOP-8			0.28	0.45		
	DIP-8		V_{CC}=3V,R_L=4Ω, THD=10%		0.11		W
	SOP-8				0.07		
Output Power (Bridge)	DIP-8	P_{OUT}	V_{CC}=6V,R_L=4Ω, THD=10%	0.9	1.35		W
	SOP-8			0.63	0.94		
	DIP-8		V_{CC}=3V,R_L=4Ω, THD=10%		0.35		W
	SOP-8				0.24		
Total Harmonic Distortion	Stereo	THD	R_L=8Ω, P_{OUT}=0.2W		0.5		%
	Bridge		R_L=8Ω, P_{OUT}=0.5W		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_T	Stereo, f=1kHz		50		dB
Input Resistance		R_{IN}		100			kΩ

■ TEST CIRCUIT

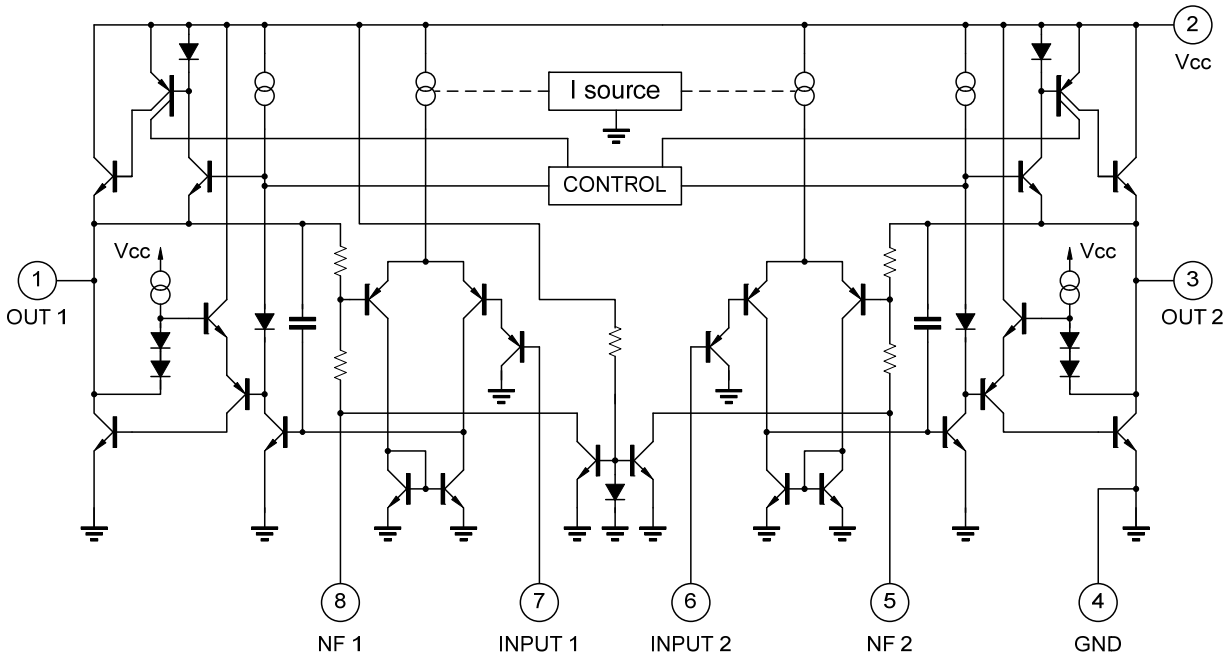
STEREO



BRIDGE



■ SCHEMATIC DIAGRAM



■ TYPICAL CHARACTERISTICS