



TDA2822H

LINEAR INTEGRATED CIRCUIT

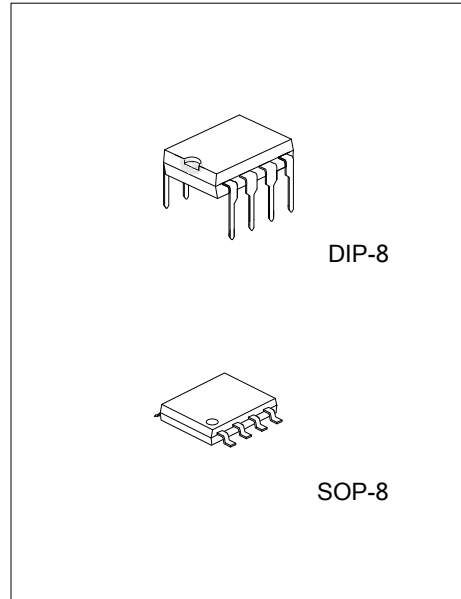
DUAL LOW VOLTAGE POWER AMPLIFIER

DESCRIPTION

The UTC **TDA2822H** 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: $V_{CC}=1.8V\sim 6V$.
- *Low crossover distortion.
- *Low quiescent circuit current.
- *Bridge/stereo configuration.



ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
TDA2822HL-D08-T	TDA2822HG-D08-T	DIP-8	Tube
TDA2822HL-S08-R	TDA2822HG-S08-R	SOP-8	Tape Reel

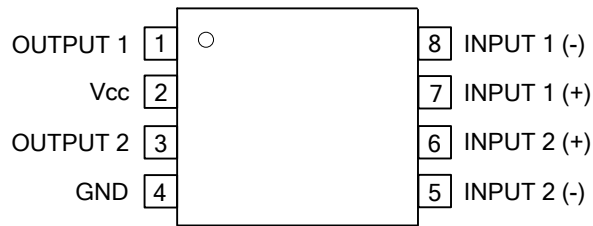
<p>TDA2822HG-D08-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) D08: DIP-8, S08: SOP-8</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING

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



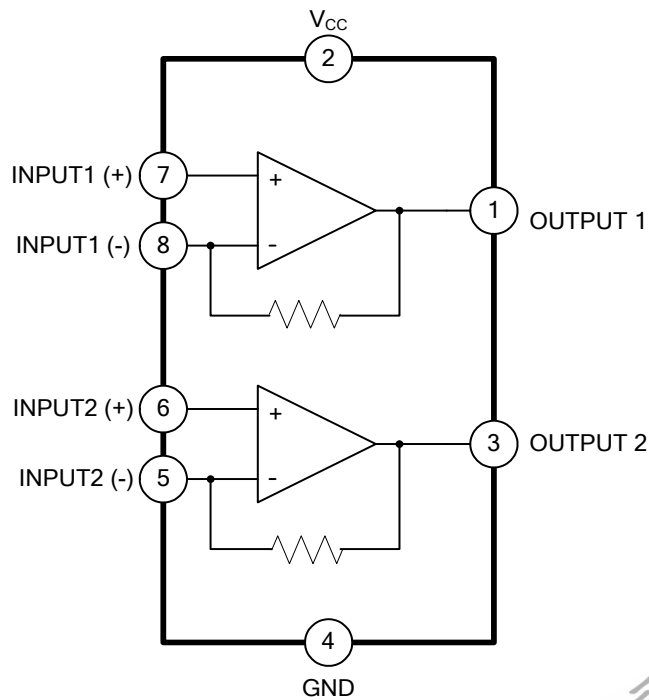
■ PIN CONFIGURATION



■ PIN DESCRIPTION

PIN NO	PIN NAME	DESCRIPTION
1	OUTPUT 1	Output of Channel 1
2	V _{cc}	Supply Voltage
3	OUTPUT 2	Output of Channel 2
4	GND	Ground.
5	INPUT 2(-)	Inverting Input of Channel 2
6	INPUT 2(+)	Non-Inverting Input of Channel 2
7	INPUT 1 (+)	Non-Inverting Input of Channel 1
8	INPUT 1 (-)	Inverting Input of Channel 1

■ 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		$I_{O(\text{peak})}$	1	A
Power Dissipation	$T_A=50^\circ\text{C}$	P_D	1.0	W
	$T_C=50^\circ\text{C}$		1.4	W
	$T_A=50^\circ\text{C}$		0.5	W
Operating Temperature		T_{OPR}	-20~+85	$^\circ\text{C}$
Storage Temperature		T_{STG}	-40 ~ +150	$^\circ\text{C}$

■ **ELECTRICAL CHARACTERISTICS** ($T_A=25^\circ\text{C}$, $V_{CC}=4.5\text{V}$, BTL parameter, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT		
Operating Supply Voltage	V_{CC}		1.8		6	V		
Quiescent Circuit Current	I_{CCQ}	$R_L=\infty$		9		mA		
Output Offset Voltage	V_{OS}	$R_L=8\Omega$			± 50	mV		
Input Base Current	I_B			100		nA		
Output Power	P_O	$f=1\text{kHz}$, THD=10%	$R_L=32\Omega$	$V_{CC}=6\text{V}$	300	320	mW	
				$V_{CC}=4.5\text{V}$		200		
				$V_{CC}=3\text{V}$	50	65		
				$V_{CC}=2\text{V}$		8		
			$R_L=16\Omega$	$V_{CC}=6\text{V}$		600		
				$V_{CC}=3\text{V}$		120		
				$V_{CC}=4.5\text{V}$		700		
				$V_{CC}=3\text{V}$		220		
$R_L=8\Omega$	$V_{CC}=4.5\text{V}$							
	$V_{CC}=3\text{V}$	200	350					
Total Harmonic Distortion	THD	$P_O=0.5\text{W}$, $R_L=8\Omega$, $P_O=1\text{kHz}$		0.2		%		
Closed Loop Voltage Gain	A_{VF}	$f=1\text{kHz}$		39		dB		
Input Resistance	Z_{IN}	$f=1\text{kHz}$	100			k Ω		
Total Input Noise	e_N	$R_s=10\text{k}\Omega$ $B=22\text{Hz} \sim 22\text{kHz}$		3		μV		
Supply Voltage Rejection	SVR	$f=100\text{Hz}$		40		dB		
Power Bandwidth	BWp	$R_L=8\Omega$, $P_O=1\text{W}$		120		kHz		

APPLICATION CIRCUIT

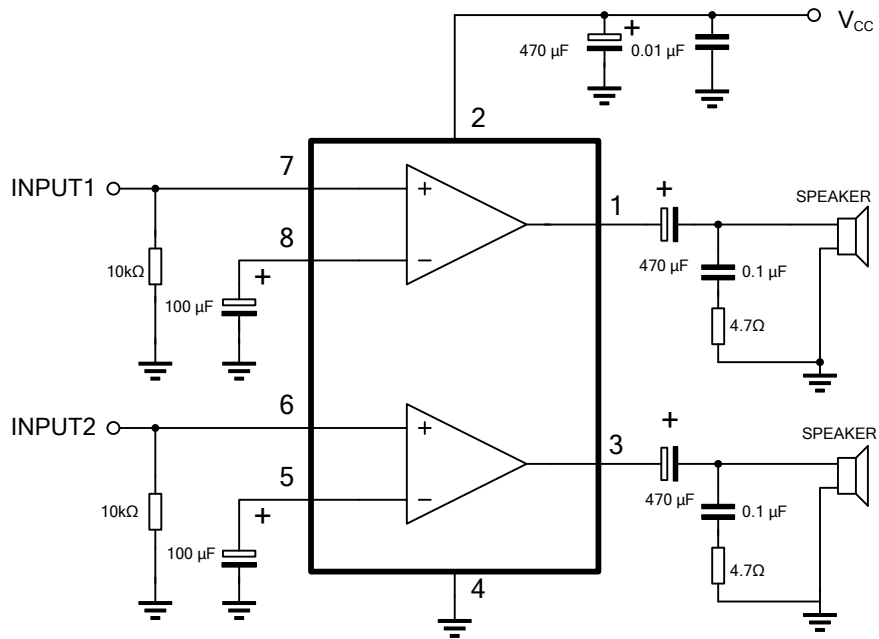


Fig 1. STEREO

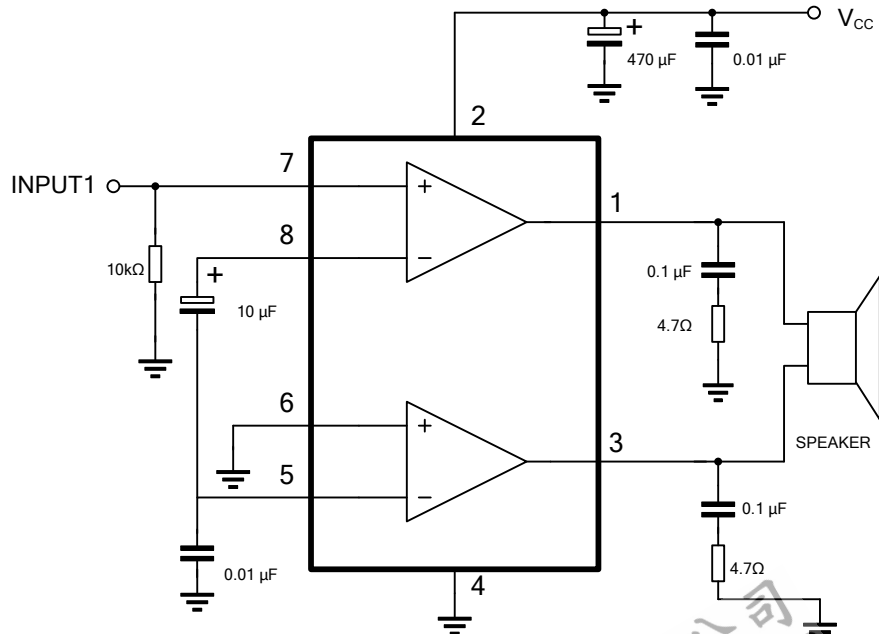


Fig 2. BRIDGE

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