

UTC TDA2822 LINEAR INTEGRATED CIRCUIT

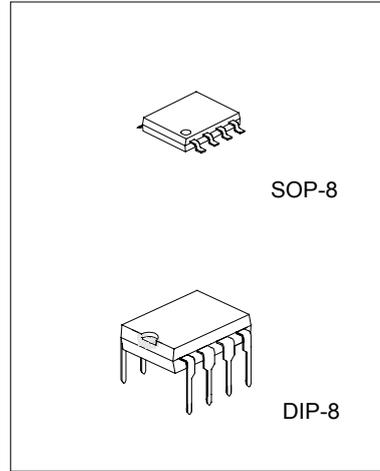
DUAL LOW VOLTAGE POWER AMPLIFIER

DESCRIPTION

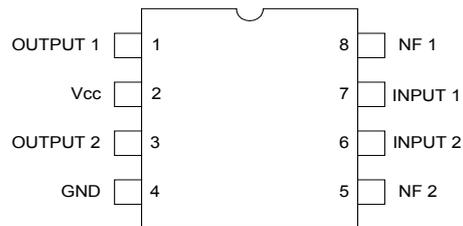
The UTC TDA2822 is a monolithic integrated audio amplifier in a 8-Pin plastic dual in line package. It is designed for portable cassette players and radios.

FEATURES

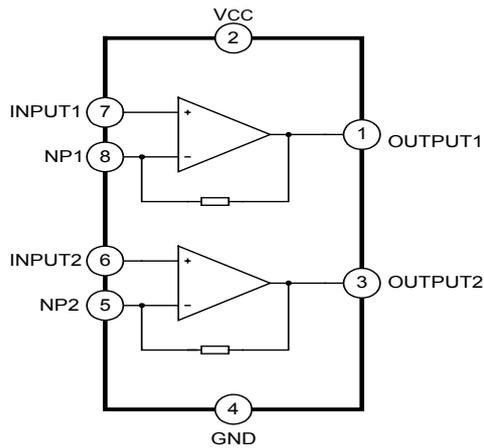
- *Wide operating supply voltage: $V_{cc}=1.8V-12V$.
- *Low crossover distortion.
- *Low quiescent circuit current.
- *Bridge/stereo configuration.



PIN CONFIGURATIONS



BLOCK DIAGRAM



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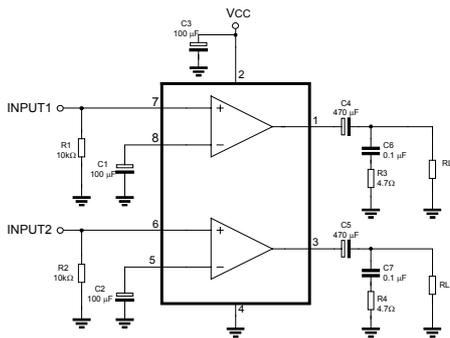
ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

| PARAMETER | SYMBOL | VALUE | UNIT |
|-----------------------|----------|----------------------------------------------|------|
| Supply Voltage | Vcc | 15 | V |
| Output Peak Current | Io(peak) | 1 | A |
| Power Dissipation | Pd | DIP at Tamb=50°C 1.0 SOP at Tamb=50°C 0.5 | W |
| Operating Temperature | Topr | -20 ~ +70 | °C |
| Storage Temperature | Tstg | -40 ~ +150 | °C |

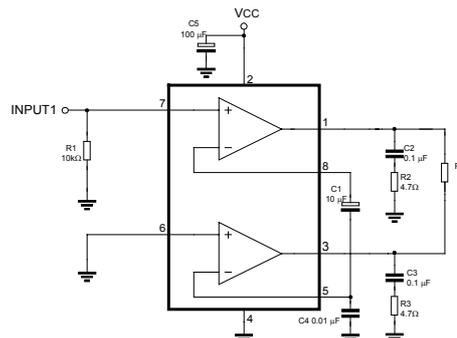
ELECTRICAL CHARACTERISTICS (Ta=25°C, VCC=6V, f=1kHz, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------------|--------|--------------------------------|-----------------------|------------------------|-----|------|
| Operating Supply Voltage | Vcc | | 1.8 | | 12 | V |
| Quiescent Circuit Current | Icc | Vi=0 | | 9 | | mA |
| Closed Loop Voltage Gain | Av | Stereo | | 40 | | dB |
| Closed Loop Voltage Gain | Av | Bridge | | 40 | | dB |
| Channel Balance | CB | Stereo | -1 | 0 | 1 | dB |
| Output Power | Po | Stereo, Vcc=6V, RL=4Ω, THD=10% | 0.4(DIP) 0.28(SOP) | 0.65(DIP) 0.45(SOP) | | W |
| Output Power | Po | Stereo, Vcc=3V, RL=4Ω, THD=10% | | 0.11(DIP) 0.07(SOP) | | W |
| Output Power | Po | Bridge, Vcc=6V, RL=4Ω, THD=10% | 0.9(DIP) 0.63(SOP) | 1.35(DIP) 0.94(SOP) | | W |
| Output Power | Po | Bridge, Vcc=6V, RL=4Ω, THD=10% | | 0.35(DIP) 0.24(SOP) | | W |
| Total Harmonic Distortion | THD | Stereo, RL=8Ω, Po=0.2W | | 0.5 | | % |
| Total Harmonic Distortion | THD | Bridge, RL=8Ω, Po=0.5W | | 0.5 | | % |
| Ripple Rejection | RR | Stereo, f=100Hz, C3=100μF | 24 | 30 | | dB |
| Output Noise Voltage | VNO | Stereo, BW(-3dB)=20Hz ~20kHz | | 0.5 | 2.0 | mV |
| Cross Talk | CT | Stereo, f=1kHz | | 50 | | dB |
| Input Resistance | Ri | | 100 | | | kΩ |

TEST CIRCUIT 1: STEREO

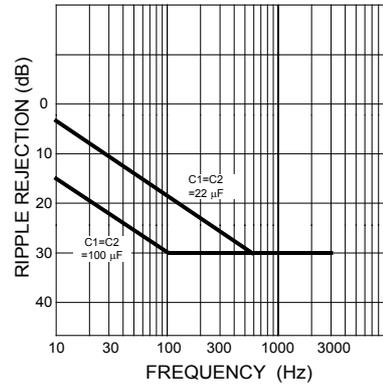
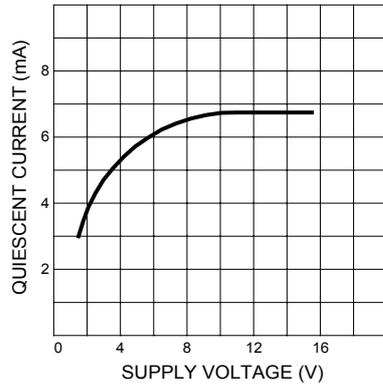


TEST CIRCUIT 2: BRIDGE



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TYPICAL PERFORMANCE CHARACTERISTICS



SCHEMATIC DIAGRAM

