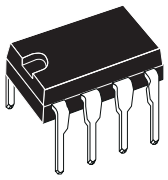
TDA8199

STEREO AMPLIFIER AND DC VOLUME CONTROL FOR TV

- Stereo Circuit
- DC Volume Control
- 12dB Maximum Gain

DESCRIPTION

The TDA8199 is a monolithic integrated circuit in DIP8 package intented for TV applications.



DIP8
(Plastic Package)

ORDER CODE: TDA8199

Figure 1. Pin Connections

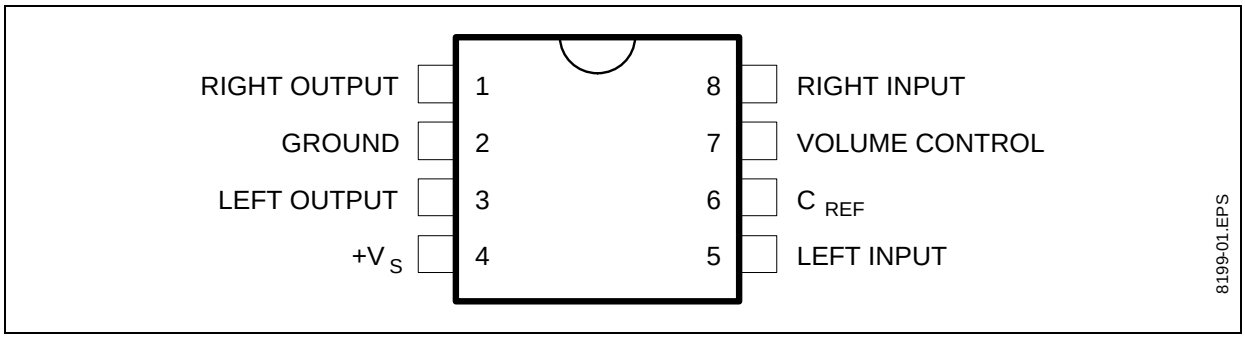
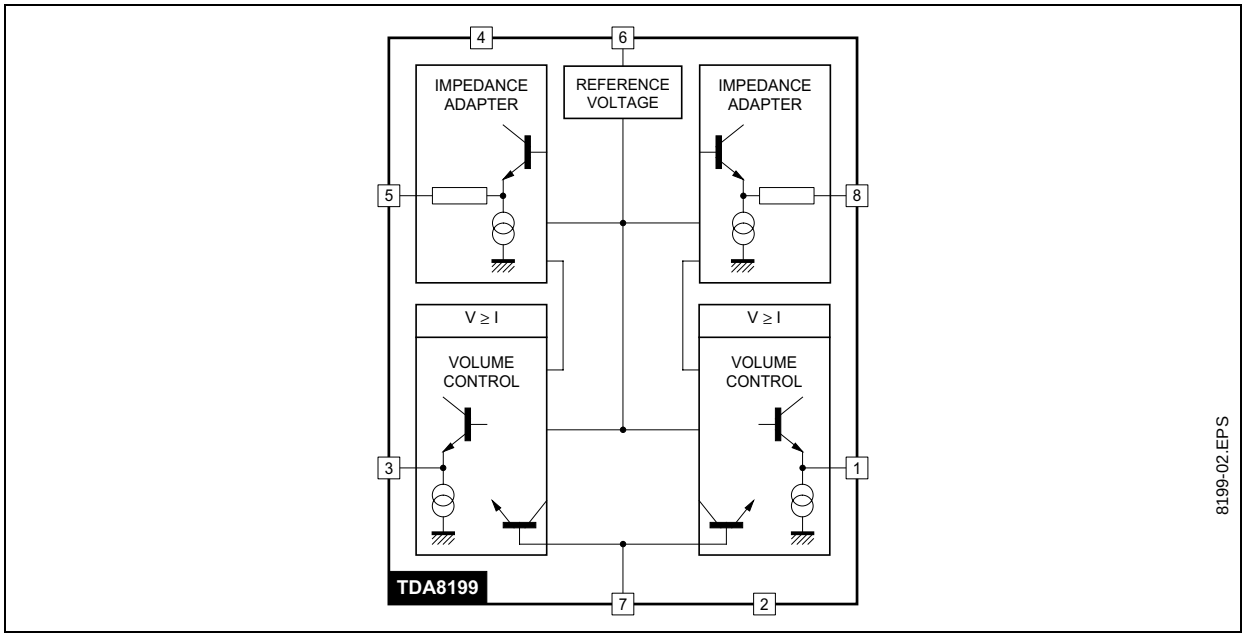


Figure 2. Block Diagram



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_s	Supply Voltage (pin 1)	16	V
T_{stg}	Storage Temperature	- 55 to 125	°C
T_{oper}	Operating Ambient Temperature	0 to 70	°C

ELECTRICAL CHARACTERISTICS

Measured according to the following conditions, unless otherwise specified : $T_{amb} = 25^{oC}$, $V_S = +12V$.

Symbol	Parameter	Min.	Typ.	Max.	Unit
V_S	Supply Voltage	10.8	12	13.2	V
I_S	Supply Current ($V_{IN} = 0$, $V_C = 0.5V$)		21	28	mA
V_{REF}	Reference Voltage		6.9		V
V_i	Audio Input Amplitude		0.125	0.5	V_{RMS}
THD1	Distortion for $V_I = 0.25\ V_{RMS}$ at Max. Volume		0.35	1	%
THD2	Distortion for $V_O = 2\ V_{RMS}$			5	%
DK	DC Volume Control Range at $V_I = 0.5\ V_{RMS}$	70	90		dB
Kmin	Output/Input Gain for Max. Volume ($V_C = 5V$)		12		dB
dK	Gain Difference between Channels at $V_C = 5V$		0		dB
C_C	Crosstalk between Channels ($R_L > 10k\Omega$ and F = 1kHz)		70		dB
R_I	Audio Input Resistance		22		kΩ
R_O	Audio Output Resistance		0.3	1	kΩ
	Output Noise Level at VC = 5V (weighted curve : DIN45405)		300		μV_{RMS}
	Volume Control Input Current (Pin 7) at $V_C = 0V$		- 25		µA
	Volume Thermal Stability (K = 30dB, $0 < T_{amb} < 60^oC$)		0.04		$dB/^oC$

Figure 3. Gain versus Volume Control

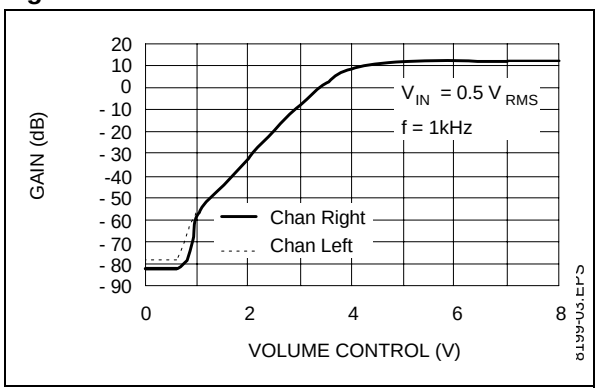


Figure 4. Distortion Rate versus Voltage Input

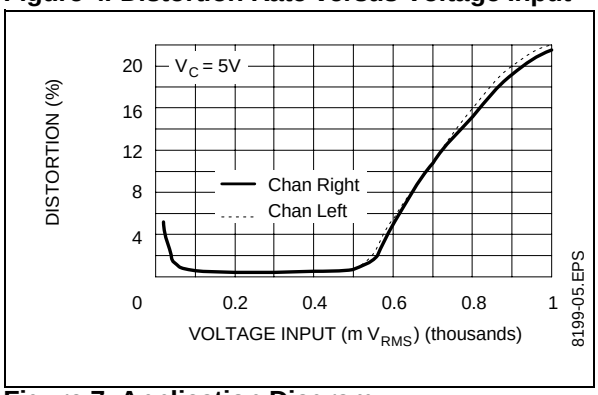


Figure 5. Distortion versus Volume Control

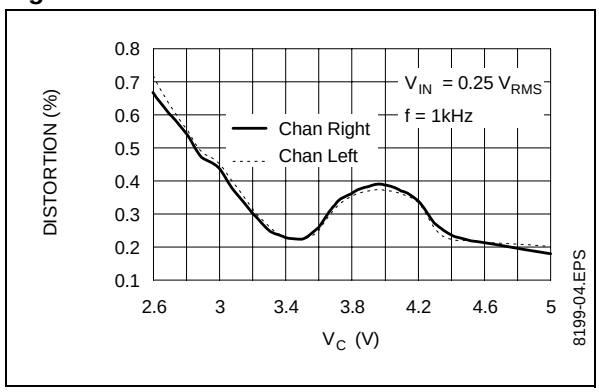


Figure 6. Supply Voltage Rejection

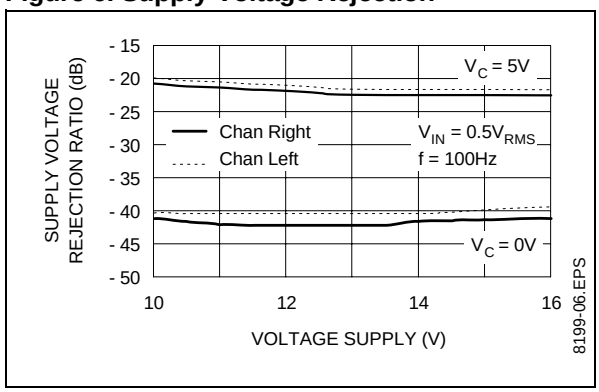
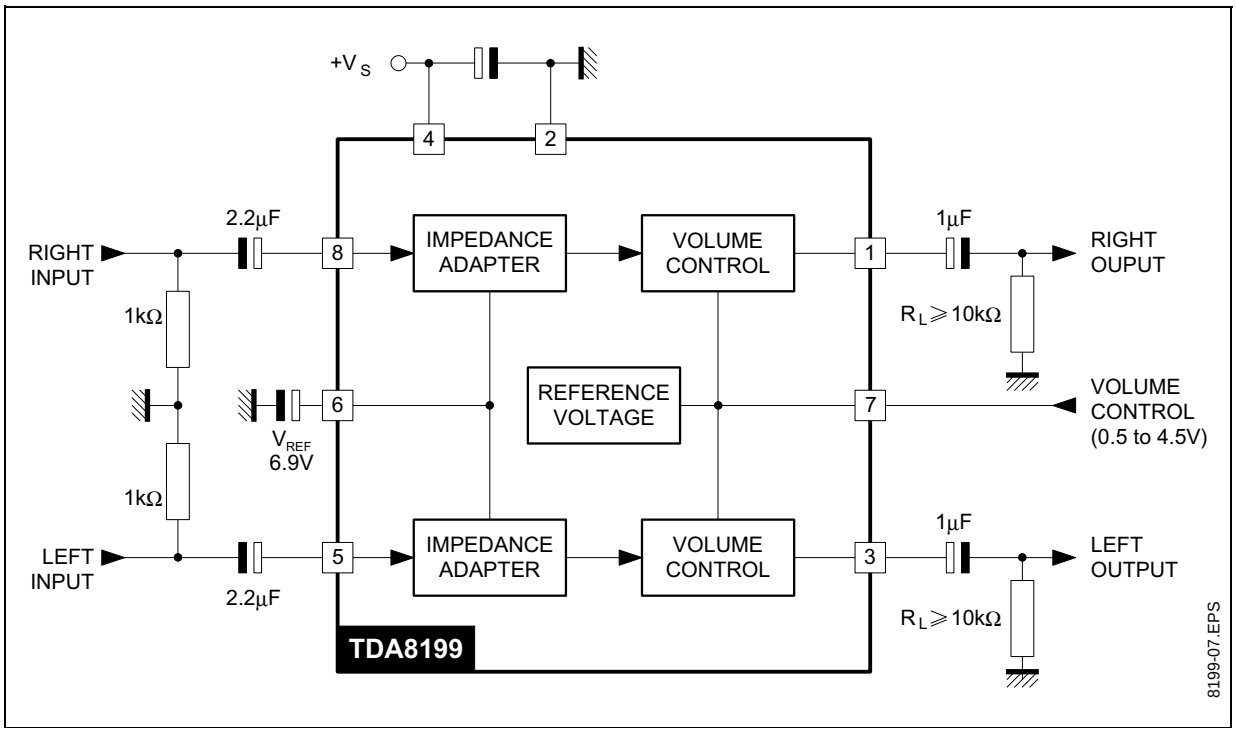


Figure 7. Application Diagram



PACKAGE MECHANICAL DATA

8-PINS - PLASTIC DIP

Figure 8. 8-Pin Package