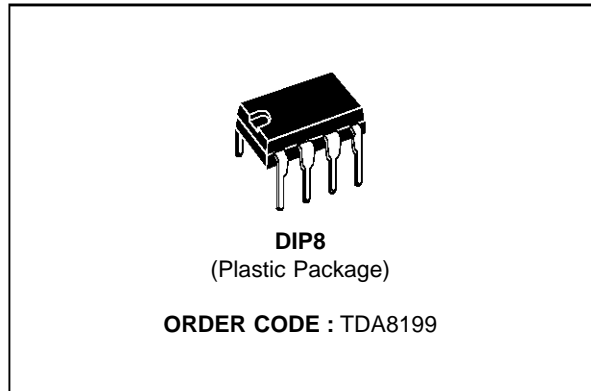


STEREO AMPLIFIER AND DC VOLUME CONTROL FOR TV

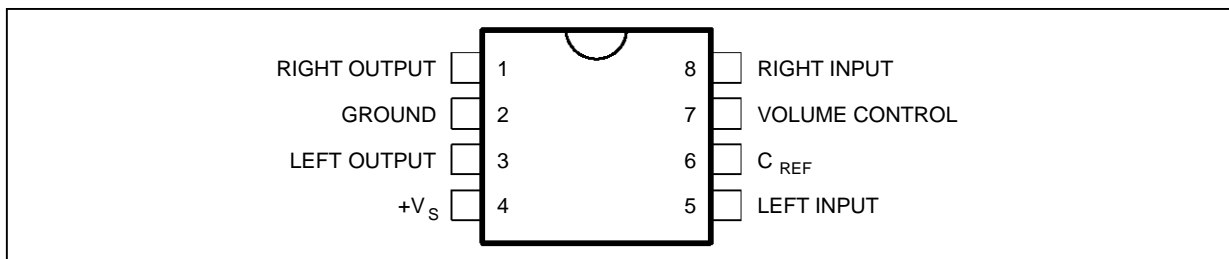
- STEREO CIRCUIT
- DC VOLUME CONTROL
- 12dB MAXIMUM GAIN



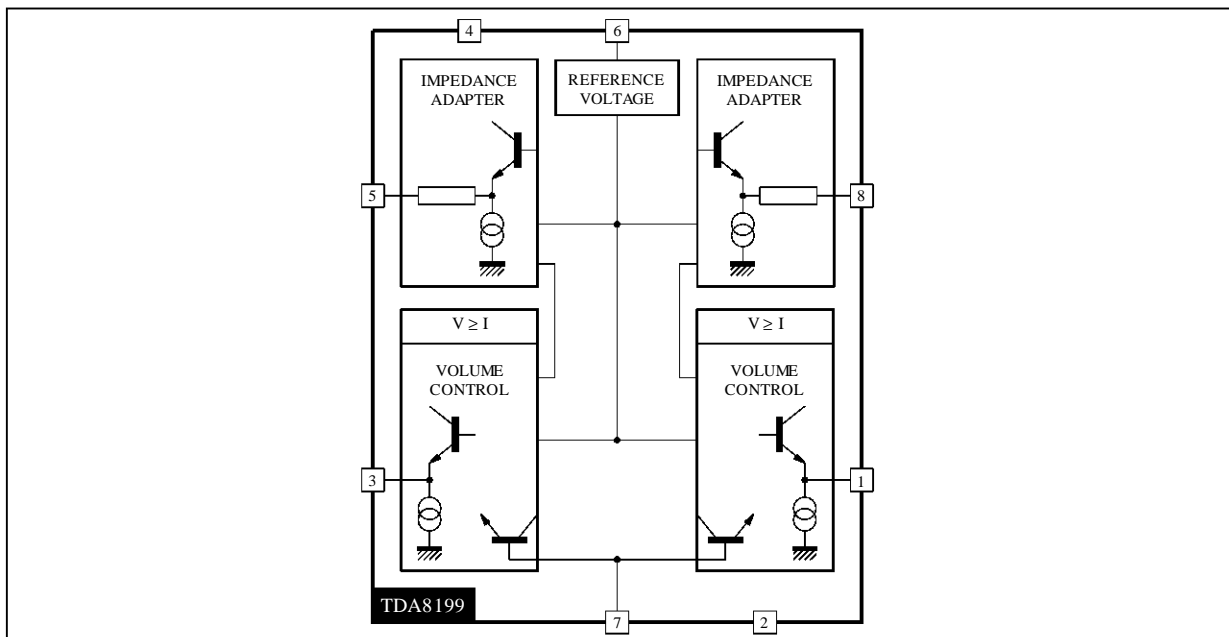
DESCRIPTION

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

PIN CONNECTIONS



BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_S	Supply Voltage	16	V
T_{stg}	Storage Temperature	- 55, + 125	°C
T_{oper}	Operating Ambient Temperature	0, + 70	°C

8199-01.TBL

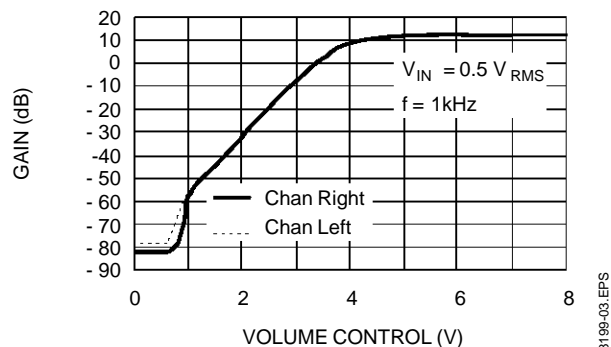
ELECTRICAL CHARACTERISTICS

Measured according to the following conditions : $T_{amb} = 25^{\circ}\text{C}$, $V_S = +12\text{V}$ (unless otherwise specified)

Symbol	Parameter	Min.	Typ.	Max.	Unit
V_S	Supply Voltage	10.8	12	13.2	V
I_S	Supply Current ($V_{IN} = 0$, $V_C = 0.5\text{V}$)		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	%
ΔK	DC Volume Control Range at $V_i = 0.5 V_{RMS}$	70	90		dB
Kmin	Output/Input Gain for Max. Volume ($V_C = 5\text{V}$)		12		dB
dK	Gain Difference between Channels at $V_C = 5\text{V}$		0		dB
C_C	Crosstalk between Channels ($R_L > 10\text{k}\Omega$ and $F = 1\text{kHz}$)		70		dB
R_i	Audio Input Resistance		22		$\text{k}\Omega$
R_o	Audio Output Resistance		0.3	1	$\text{k}\Omega$
	Output Noise Level at $V_C = 5\text{V}$ (weighted curve : DIN45405)		300		μV_{RMS}
	Volume Control Input Current (Pin 7) at $V_C = 0\text{V}$		- 25		μA
	Volume Thermal Stability ($K = 30\text{dB}$, $0 < T_{amb} < 60^{\circ}\text{C}$)		0.04		$\text{dB}/^{\circ}\text{C}$

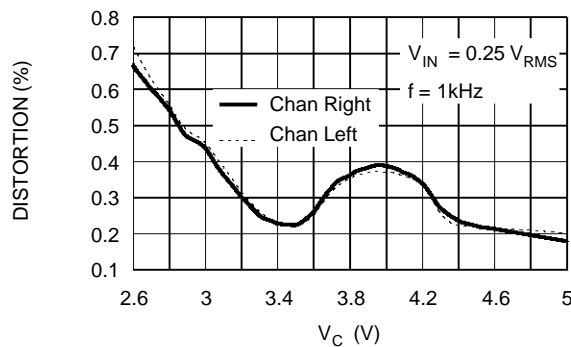
8199-02.TBL

Figure 1 : Gain versus Volume Control



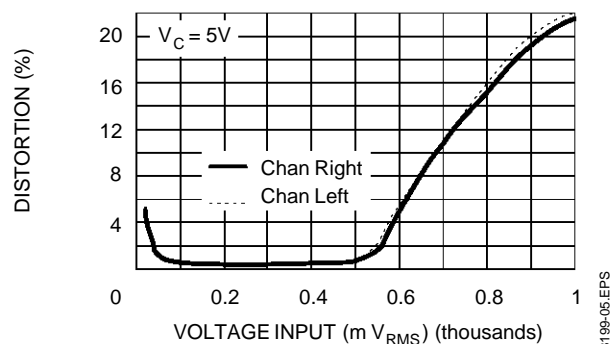
8199-03.EPS

Figure 2 : Distortion versus Volume Control



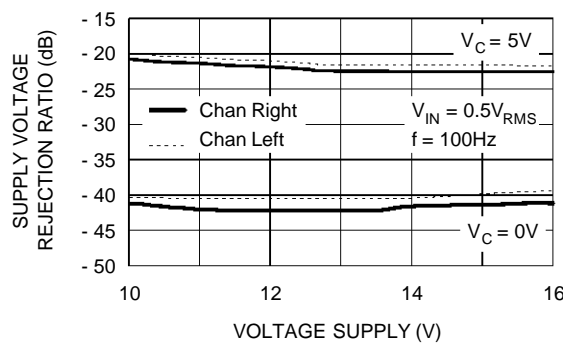
8199-04.EPS

Figure 3 : Distortion Rate versus Voltage Input



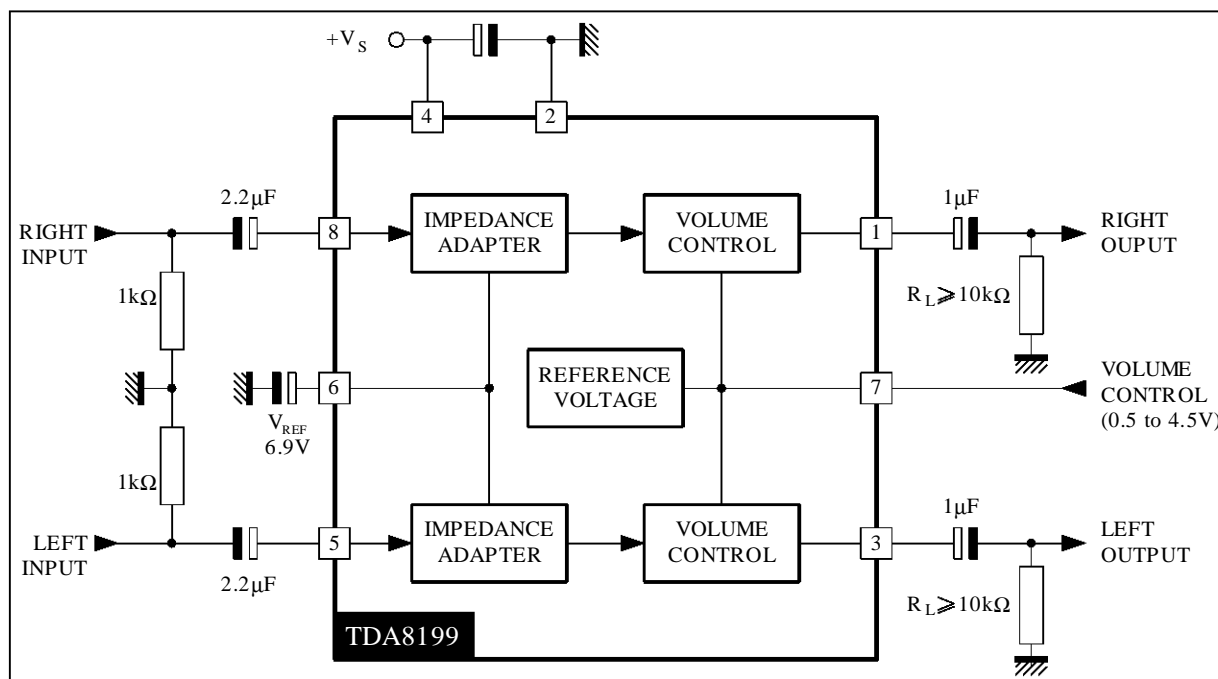
8199-05.EPS

Figure 4 : Supply Voltage Rejection



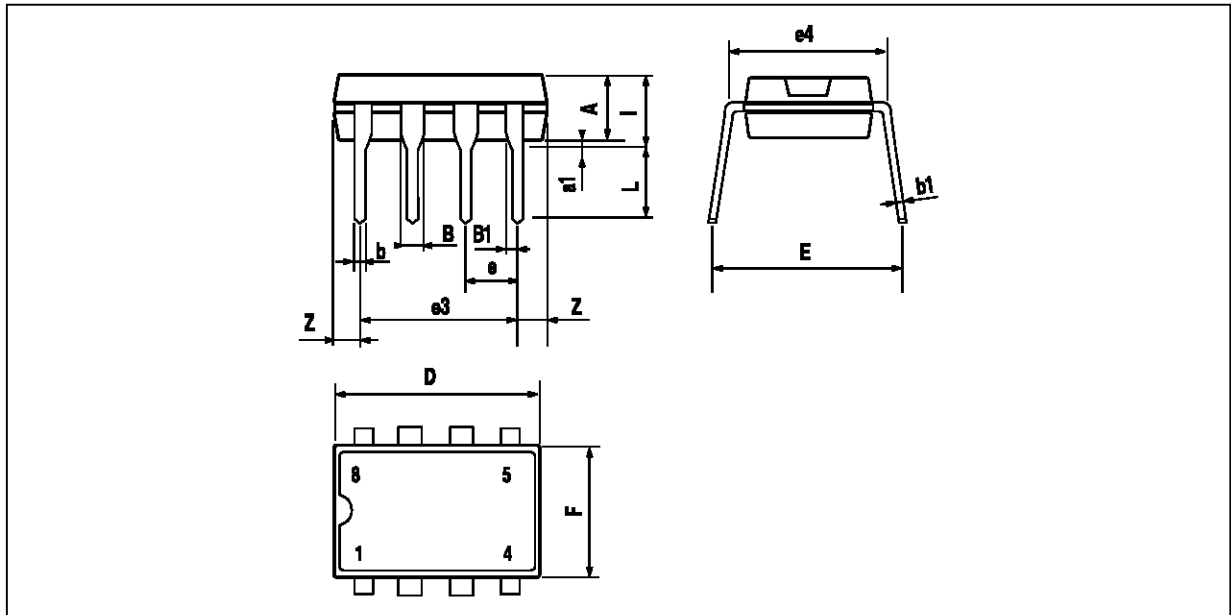
8199-06.EPS

APPLICATION DIAGRAM



8199-07.EPS

PACKAGE MECHANICAL DATA
8 PINS - PLASTIC DIP



PM-DIP8.EPS

Dimensions	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		3.32			0.131	
a1	0.51			0.020		
B	1.15		1.65	0.045		0.065
b	0.356		0.55	0.014		0.022
b1	0.204		0.304	0.008		0.012
D			10.92			0.430
E	7.95		9.75	0.313		0.384
e		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			6.6			0.260
I			5.08			0.200
L	3.18		3.81	0.125		0.150
Z			1.52			0.060

DIP8.TBL

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