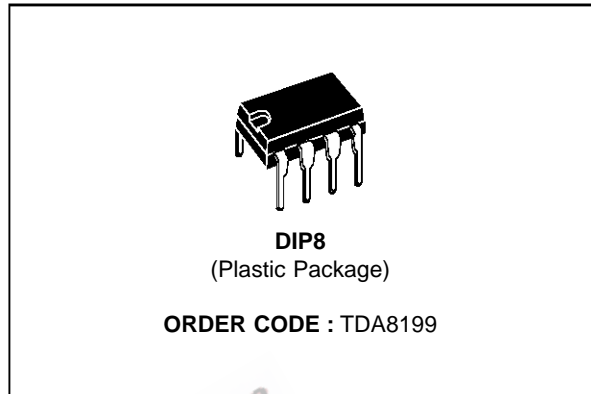


**STEREO AMPLIFIER AND DC VOLUME CONTROL FOR TV**

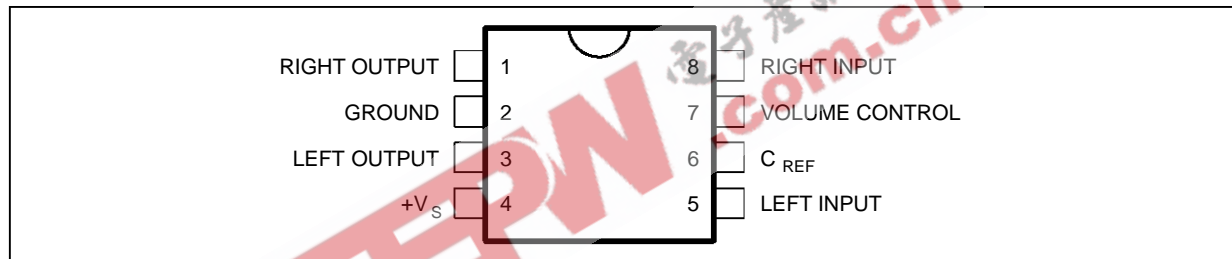
- STEREO CIRCUIT
- DC VOLUME CONTROL
- 12dB MAXIMUM GAIN



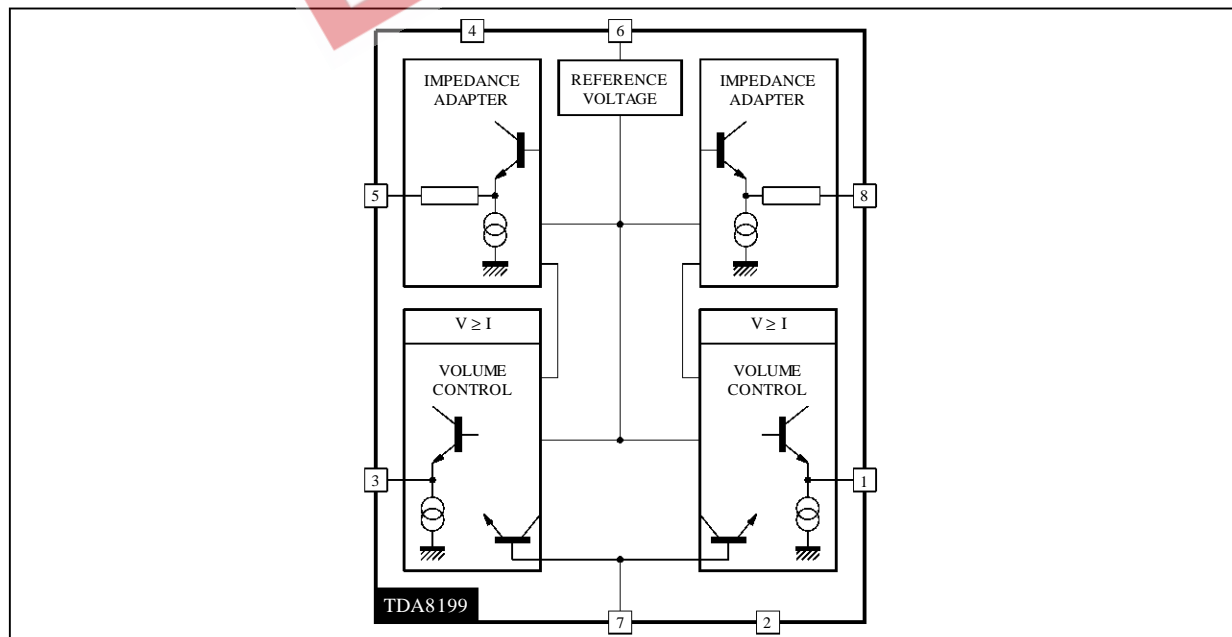
**DESCRIPTION**

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 <sub>S</sub>	Supply Voltage	16	V
T <sub>stg</sub>	Storage Temperature	- 55, + 125	°C
T <sub>oper</sub>	Operating Ambient Temperature	0, + 70	°C

8199-01.TBL

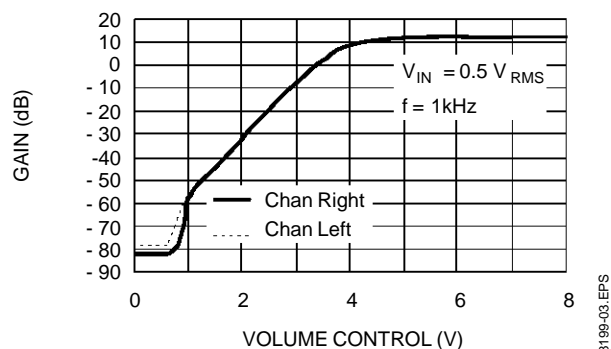
## ELECTRICAL CHARACTERISTICS

Measured according to the following conditions : T<sub>amb</sub> = 25°C, V<sub>S</sub> = +12V (unless otherwise specified)

Symbol	Parameter	Min.	Typ.	Max.	Unit
V <sub>S</sub>	Supply Voltage	10.8	12	13.2	V
I <sub>S</sub>	Supply Current (V <sub>IN</sub> = 0, V <sub>C</sub> = 0.5V)		21	28	mA
V <sub>REF</sub>	Reference Voltage		6.9		V
V <sub>i</sub>	Audio Input Amplitude		0.125	0.5	V <sub>RMS</sub>
THD1	Distortion for V <sub>i</sub> = 0.25 V <sub>RMS</sub> at Max. Volume		0.35	1	%
THD2	Distortion for V <sub>O</sub> = 2 V <sub>RMS</sub>			5	%
ΔK	DC Volume Control Range at V <sub>i</sub> = 0.5 V <sub>RMS</sub>	70	90		dB
Kmin	Output/Input Gain for Max. Volume (V <sub>C</sub> = 5V)		12		dB
dK	Gain Difference between Channels at V <sub>C</sub> = 5V		0		dB
C <sub>C</sub>	Crosstalk between Channels (R <sub>L</sub> > 10kΩ and F = 1kHz)		70		dB
R <sub>i</sub>	Audio Input Resistance		22		kΩ
R <sub>O</sub>	Audio Output Resistance		0.3	1	kΩ
	Output Noise Level at V <sub>C</sub> = 5V (weighted curve : DIN45405)		300		μV <sub>RMS</sub>
	Volume Control Input Current (Pin 7) at V <sub>C</sub> = 0V		- 25		μA
	Volume Thermal Stability (K = 30dB, 0 < T <sub>amb</sub> < 60°C)		0.04		dB/°C

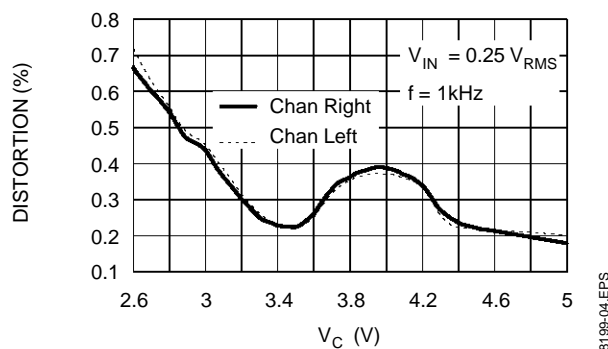
8199-02.TBL

Figure 1 : Gain versus Volume Control



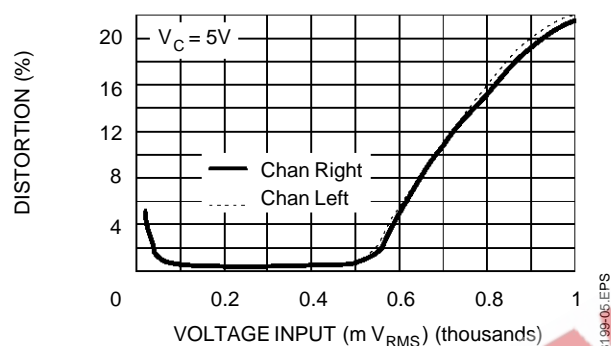
8199-03.EPS

Figure 2 : Distortion versus Volume Control



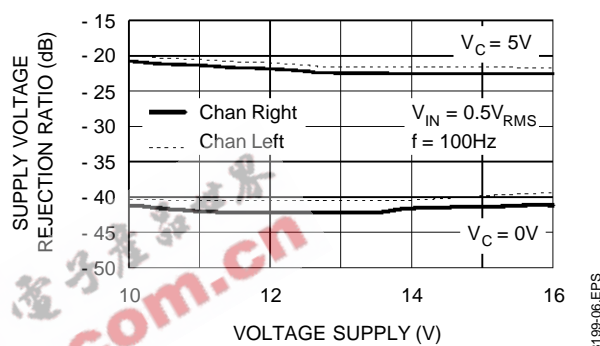
8199-04.EPS

Figure 3 : Distortion Rate versus Voltage Input



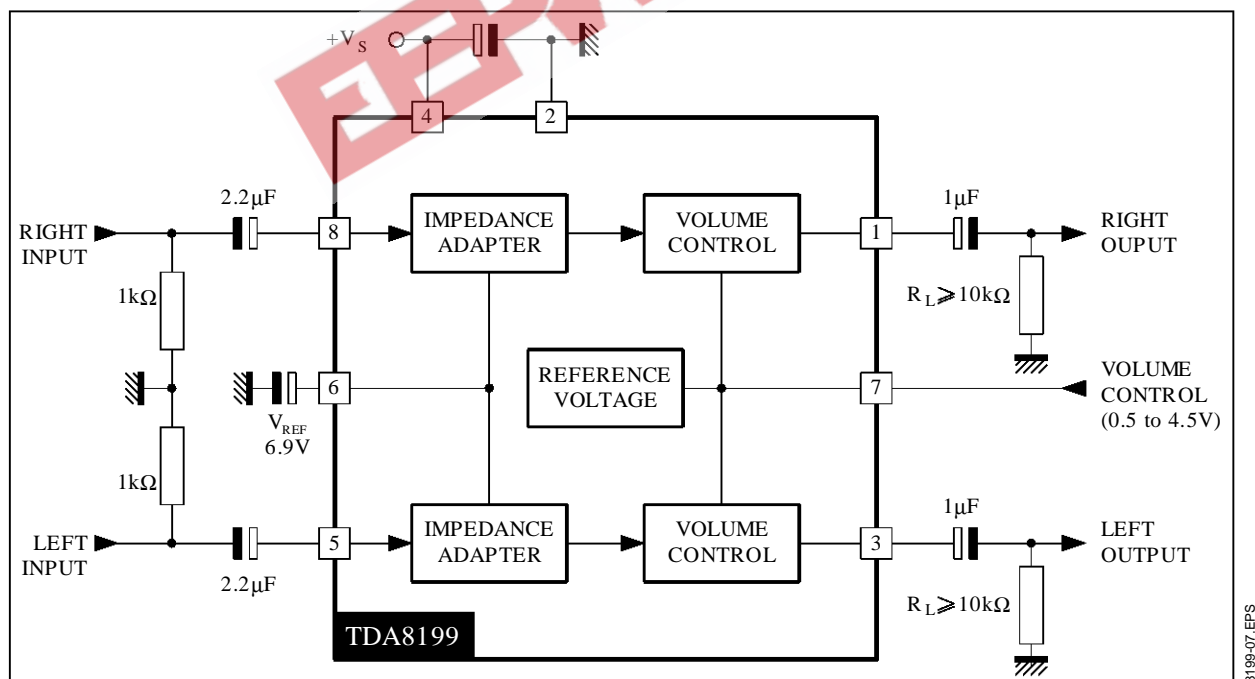
8199-05.EPS

Figure 4 : Supply Voltage Rejection



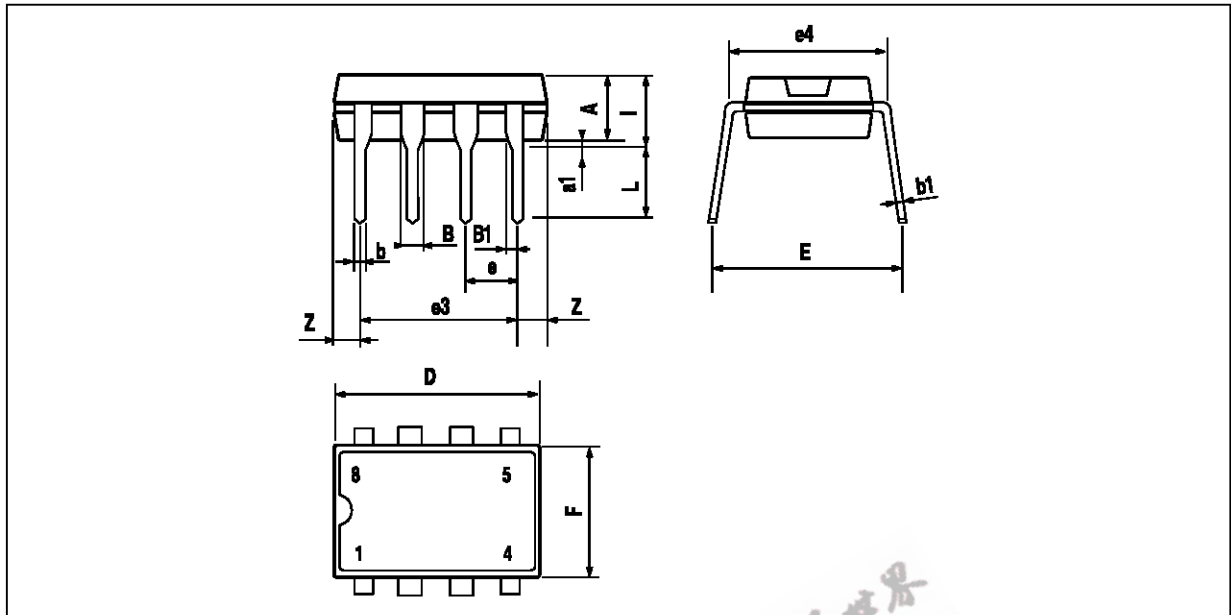
8199-06.EPS

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
l			5.08			0.200
L	3.18		3.81	0.125		0.150
Z			1.52			0.060

DIP8.TBL

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