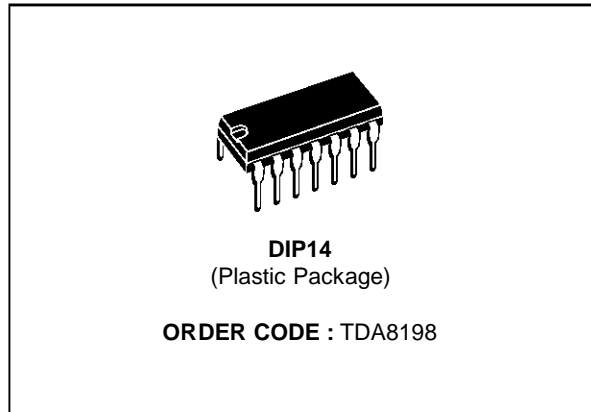


DOUBLE AUDIO SWITCH AND DC VOLUME CONTROL FOR TV

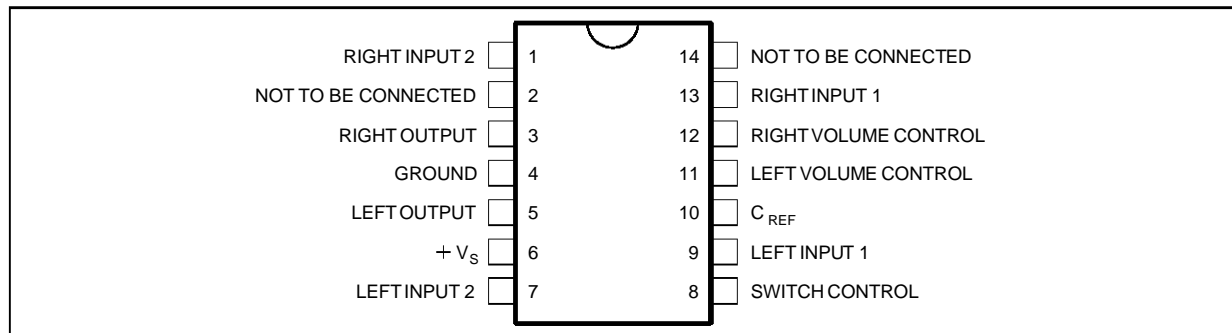
- A DOUBLE TWO-INPUT CIRCUITS WITH SWITCHING FACILITIES
- A DOUBLE DC VOLUME CONTROL
- 12dB MAXIMUM GAIN
- 90dB SIGNAL DYNAMIC RANGE

DESCRIPTION

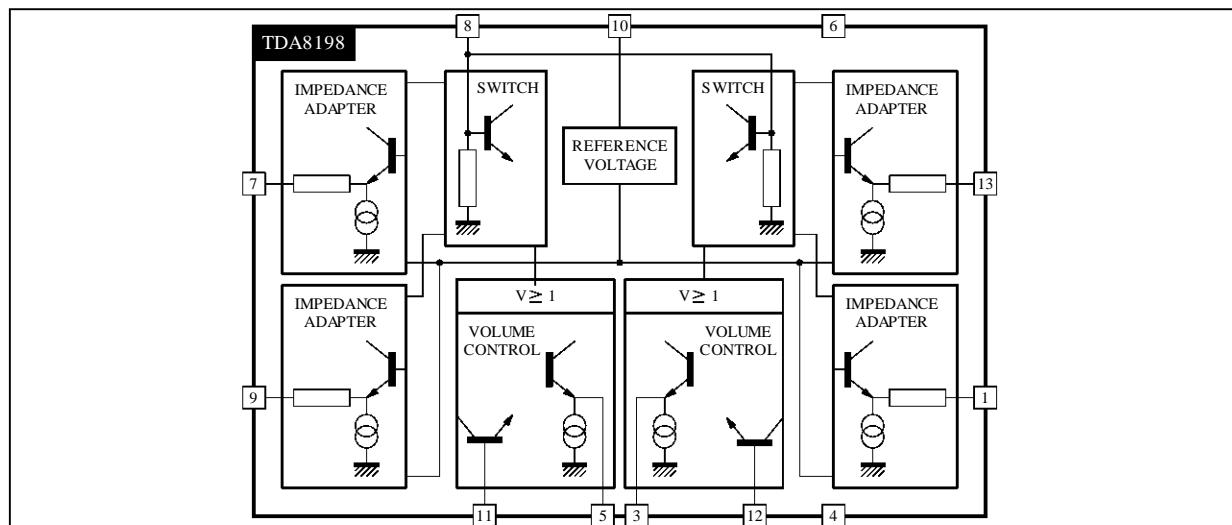
The TDA8198 is a monolithic integrated circuit in DIP14 package intended for TV applications which provides Audio switching facilities between two double inputs including DC volume control.



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

8198-01.TBL

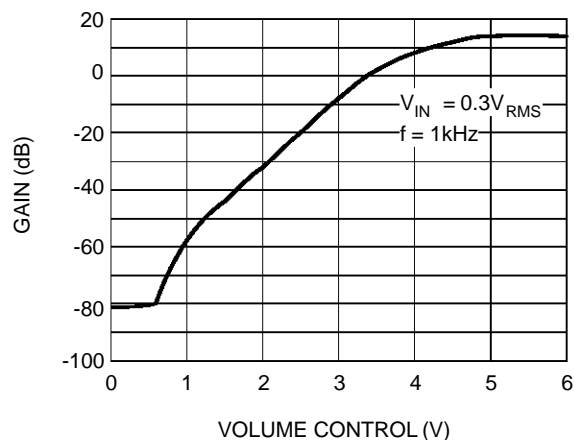
ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter	Min.	Typ.	Max.	Unit
V _S	Supply Voltage Range	10.8	12	13.2	V
I _S	Supply Current (V _{IN} = 0, V _C = 0.5V)		24	32	mA
V _R	Reference Voltage		6.9		V
V _M	Mode Selection Voltage Audio 1 Audio 2	9.5		5 V _S	V
R _{SW}	Switching Input Resistance	15	30		kΩ
V _I	Audio Input Amplitude		0.125	0.3	V _{RMS}
Δk	DC Volume Control Range @ V _I = 0.3V _{RMS}	70	90		dB
k _{MIN}	Output/Input Gain for Maximum Volume (V _C = 5V)		12		dB
dK	Gain Difference between Channels at V _C = 5V		0		dB
V _C	Volume Control Range k = k _{MAX} (volume minimum) k = k _{MIN} (volume maximum)	5		0.5	V
THD1	Distortion for V _I = 0.25V _{RMS} at Maximum Volume		0.3	1	%
THD2	Distortion for V _O = 1.2V _{RMS}			5	%
C _T	Crosstalk between Switched Inputs		80		dB
C _C	Crosstalk between Channels 1 & 2		70		dB
R _I	Audio Input Resistance		22		kΩ
R _O	Audio Output Resistance		10	300	Ω
	Output Noise Level @ V _C = 5V (weighted) (curve : DIN45 405)		300		μV _{RMS}
I - V _C	Volume Control Input Current (Pins 11 and 12) at V _C = 5V		-12		μA
	Volume thermal stability (k = 30dB, 0 < T _{amb} < 60°C)		0.04		dB/°C

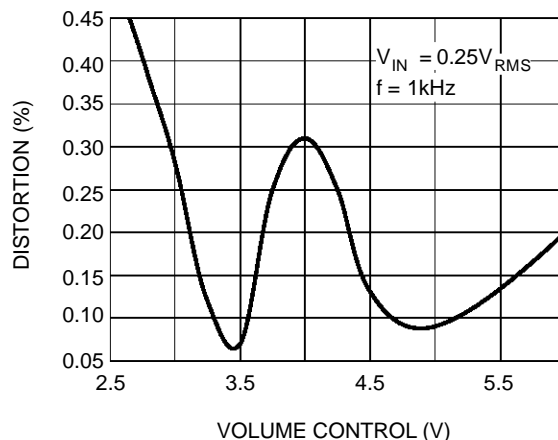
8198-02.TBL

Figure 1 : Gain versus Volume Control



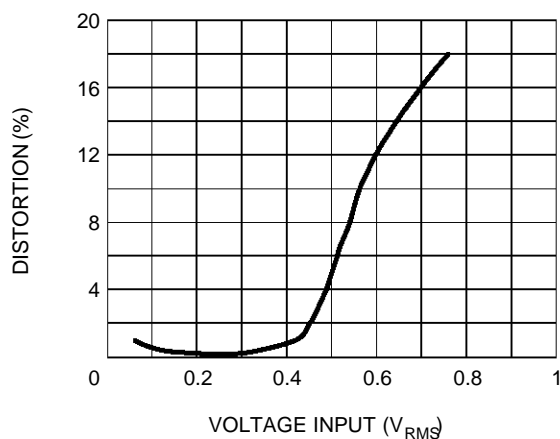
8198-03.EPS

Figure 2 : Distortion versus Volume Control



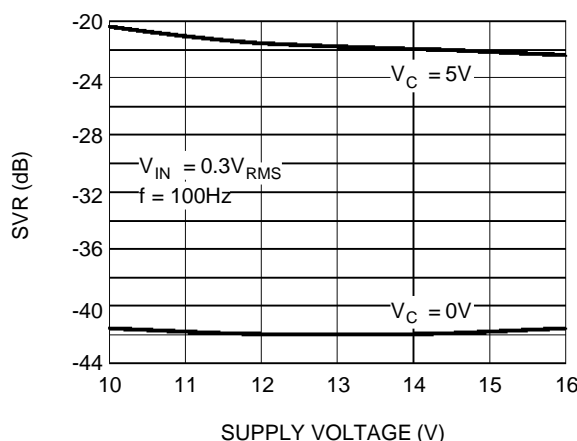
8198-04.EPS

Figure 3 : Distortion versus Voltage Input



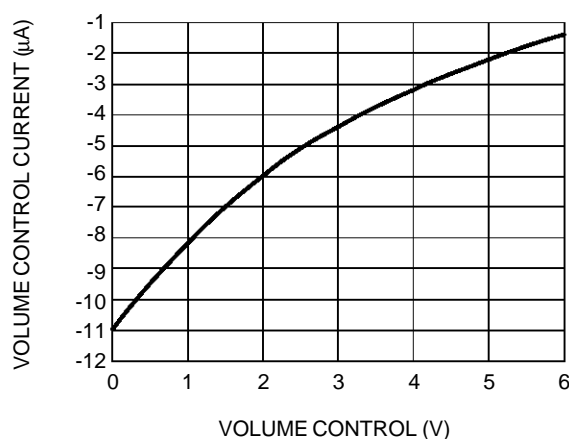
8198-05.EPS

Figure 4 : Supply Voltage Rejection



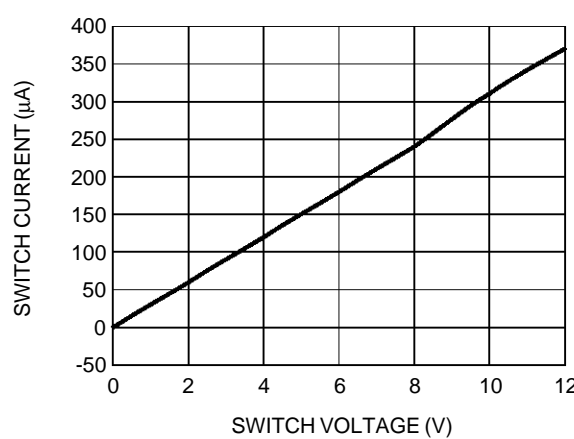
8198-06.EPS

Figure 5 : Volume Control Current versus Voltage (pins 11 - 12)



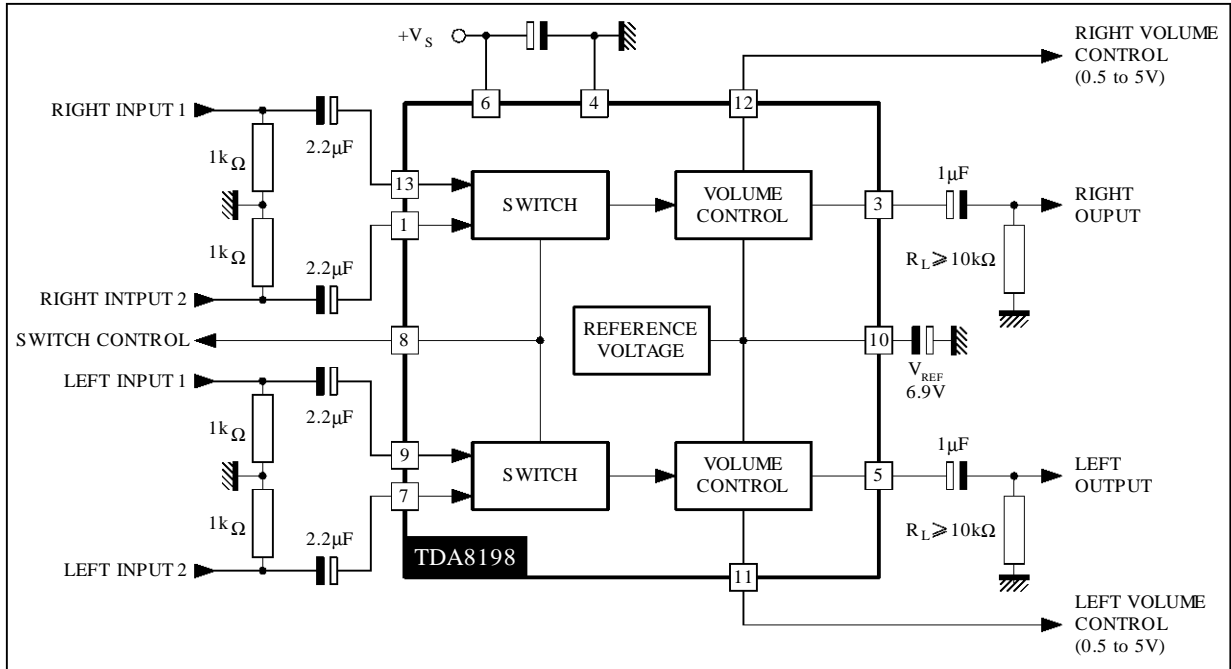
8198-07.EPS

Figure 6 : Switch Current versus Voltage (pin 8)



8198-08.EPS

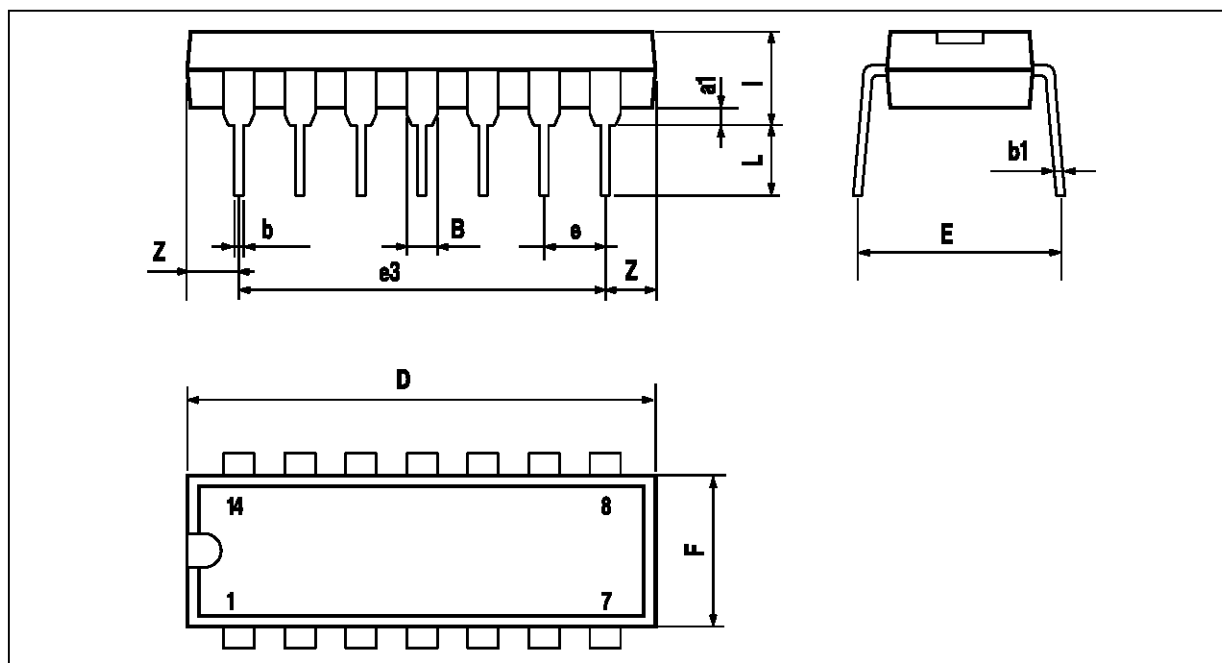
APPLICATION DIAGRAM



8198-09.EPS

PACKAGE MECHANICAL DATA

14 PINS - PLASTIC DIP



PM-DIP14LEPS

Dimensions	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
a1	0.51			0.020		
B	1.39		1.65	0.055		0.065
b		0.5			0.020	
b1		0.25			0.010	
D			20			0.787
E		8.5			0.335	
e		2.54			0.100	
e3		15.24			0.600	
F			7.1			0.280
l			5.1			0.201
L		3.3			0.130	
Z	1.27		2.54	0.050		0.100

DIP14.TBL

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