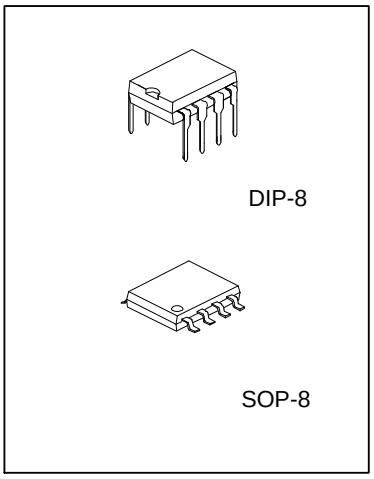
2-CH HEADPHONE AMPLIFIER (15mW x 2)

DESCRIPTION

The SC1308L is a Class AB stereo headphone driver chip utilizing CMOS Technology specially designed for portable digital audio applications. It is housed in an 8-pin DIP or SO package and is functionally compatible with TDA1308. Pin assignment and application circuits are optimized for lower cost effectiveness and easy PCB Layout.



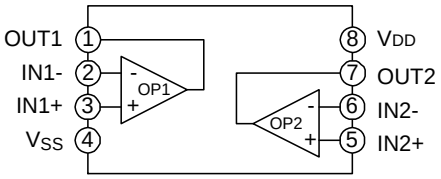
FEATURES

* Wide temperature range
* CMOS Technology
* Excellent power supply ripple rejection
* Low power consumption
* High signal-to-noise ratio, S/N=110dB
* Low harmonic distortion
* Large output voltage swing.
* Low supply voltage available

APPLICATIONS

* Portable digital audio
* Hi-fi audio system
* Walkman
* CD-ROM

BLOCK DIAGRAM



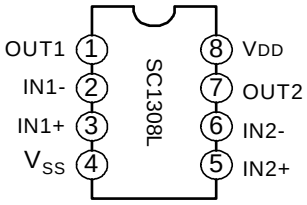
ABSOLUTE MAXIMUM RATING

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{DD}	8	V
Storage Temperature	T_{STG}	-65 ~ +150	°C
Operating Temperature	T_{OPR}	-40~ + 80	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C, unless otherwise specified)

Characteristics	Symbol	Test conditions		Min	Typ	Max	Unit
Single power supply	V_{DD}			2	3	4	V
Dual power supply				+1.0	+1.5	+2.0	
Single power supply	V_{SS}			0	0	0	V
Dual power supply				-1.0	-1.5	-2.0	
Supply current	I_{DD}	No load V_{DD}=3V		--	2	--	mA
Power dissipation	P_D	No load V_{DD}=3V			15		mW
Maximum output power	P_O	THD=0.15%	V_{DD}=1.8V	--	4	--	mW
			V_{DD}=3V	--	15	--	
		THD=3%	V_{DD}=1.8V	--	5	--	
			V_{DD}=3V	--	20	--	
Total harmonic distortion	THD	$V_{O(p-p)}$=2V			0.03	0.06	%
		$V_{O(p-p)}$=2V , RL=5KΩ			0.001		
Single-to-noise ratio	S/N			100	110		dB
Channel separation	CS				70		dB
		RL=5K Ohms			105		
Power supply ripple rejection	PSRR	F=100Hz,Vripple(p-p) =100mV			90		dB

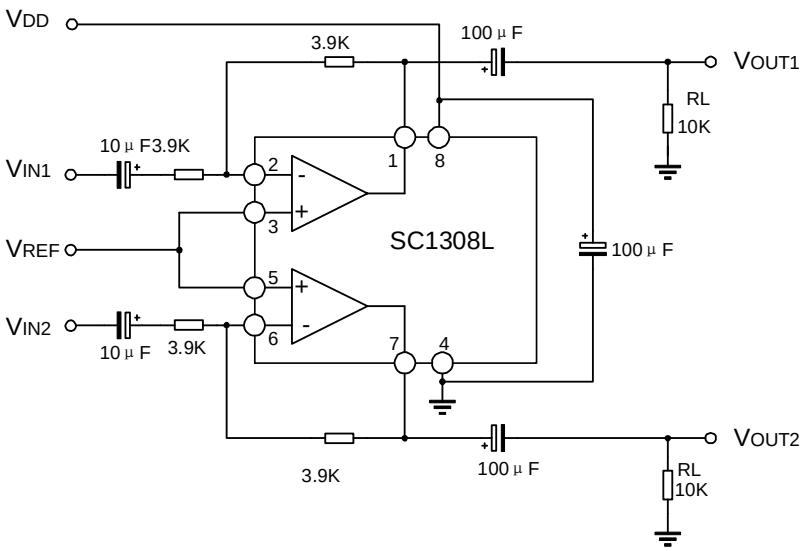
PIN CONFIGURATIONS



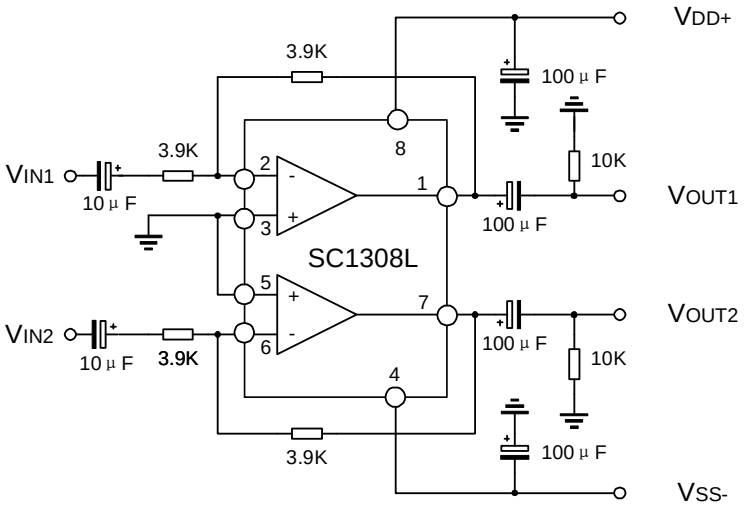
PIN DESCRIPTION

PIN No.	Symbol	I/O	Description
1	OUT1	O	Output pin 1
2	IN1-	I	Inverting input pin 1
3	IN1+	I	Non-inverting input pin1
4	V_{SS}	--	Negative power supply
5	IN2+	I	Non-inverting input pin 2
6	IN2-	I	Inverting input pin 2
7	OUT2	O	Output pin 2
8	V_{DD}	--	Positive power supply

TYPICAL APPLICATION CIRCUIT



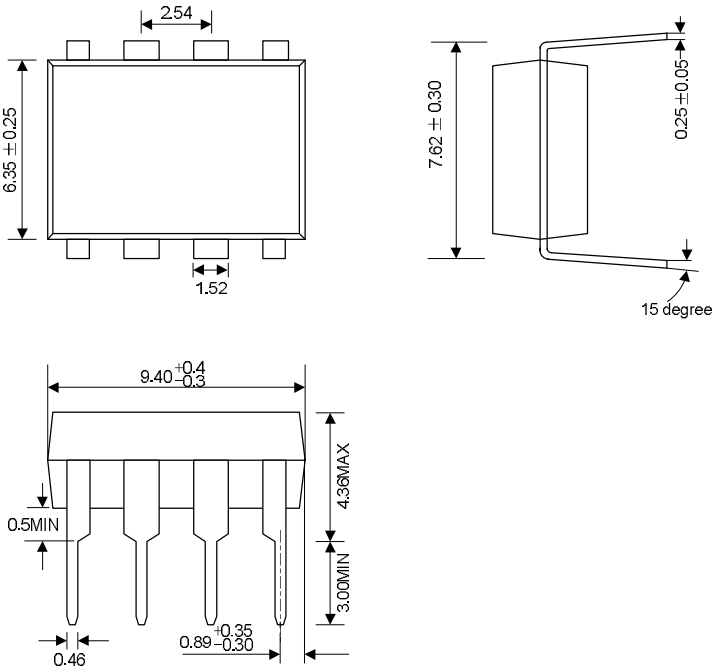
Single power supply



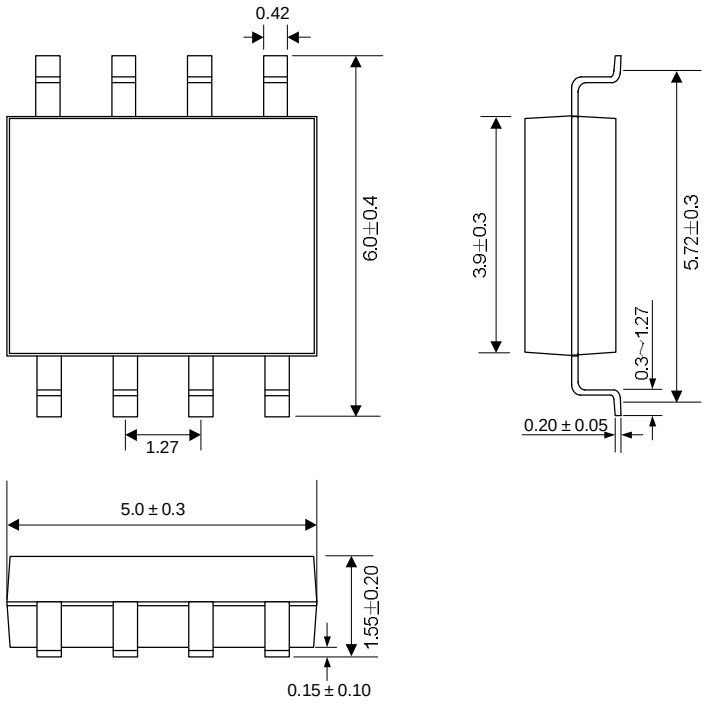
Dual power supply

PACKAGE OUTLINE

DIP-8-300-2.54 UNIT: mm



SOP-8-225-1.27 UNIT: mm



HANDLING MOS DEVICES:

Electrostatic charges can exist in many things. All of our MOS devices are internally protected against electrostatic discharge but they can be damaged if the following precautions are not taken:

- Persons at a work bench should be earthed via a wrist strap.
- Equipment cases should be earthed.
- All tools used during assembly, including soldering tools and solder baths, must be earthed.
- MOS devices should be packed for dispatch in antistatic/conductive containers.