DESCRIPTION

PT2308 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 SOP package and is functionally compatible with TDA1308. Pin assignments and application circuit are optimized for lower cost effectiveness and easy PCB Layout.

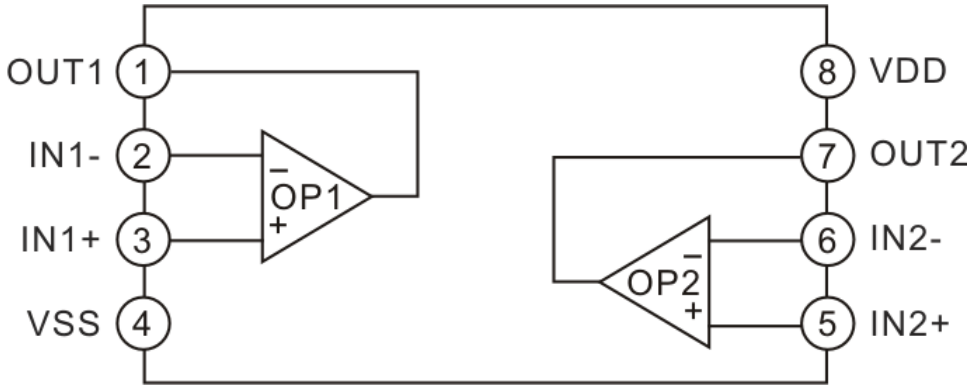
FEATURES

- CMOS technology
- Low power consumption
- Wide temperature range
- Excellent power supply ripple rejection
- High signal-to-noise ratio, S/N=110dB
- Low harmonic distortion, THD=0.001%
- Large output voltage swing

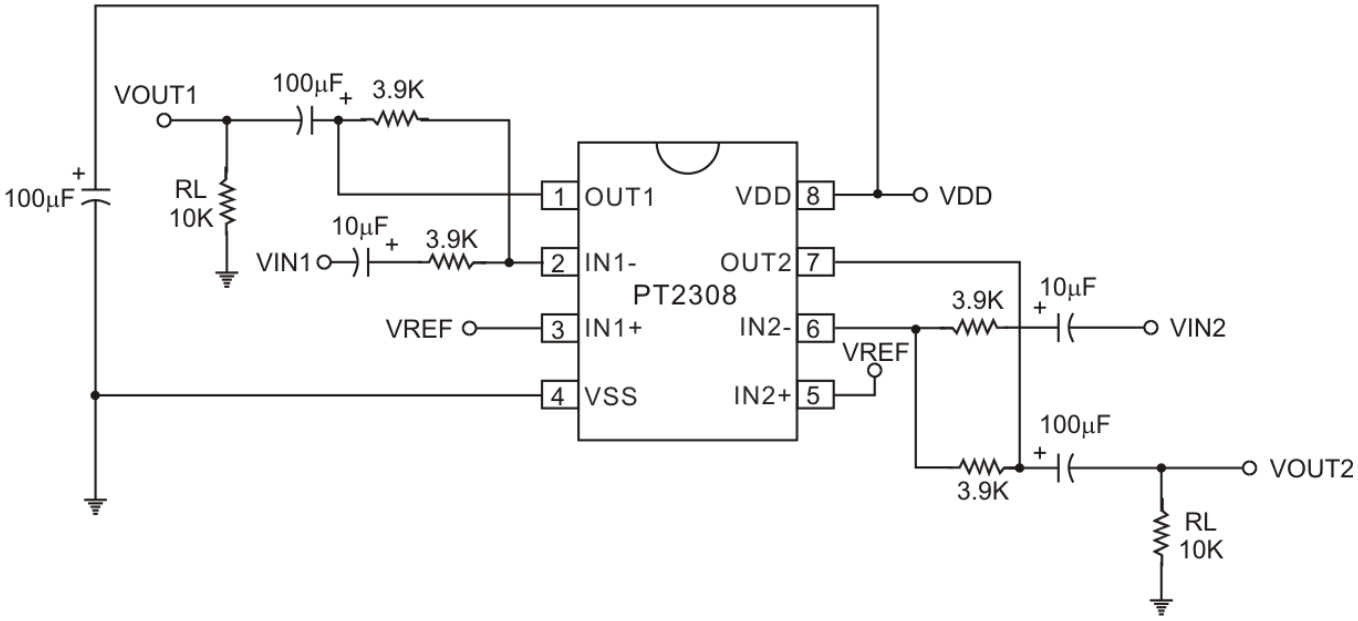
APPLICATIONS

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

BLOCK DIAGRAM



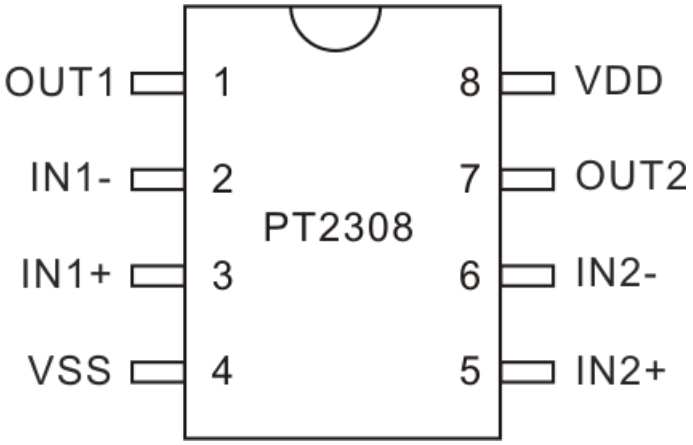
APPLICATION CIRCUIT



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2308	8 Pins, DIP, 300mil	PT2308
PT2308-S	8 Pins, SOP, 150mil	PT2308-S

PIN CONFIGURATION



PIN DESCRIPTION

Symbol	I/O	Description	Pin No.
OUT1	O	Output pin 1	1
IN1-	I	Inverting input pin 1	2
IN1+	I	Non-inverting input pin 1	3
VSS	-	Negative power supply	4
IN2+	I	Non-inverting input pin 2	5
IN2-	I	Inverting input pin 2	6
OUT2	O	Output pin 2	7
VDD	-	Positive power supply	8

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Ratings	Unit
Supply voltage	VDD	8	V
Operating temperature	Topr	-40~+85	℃
Storage temperature	Tstg	-65~+150	℃

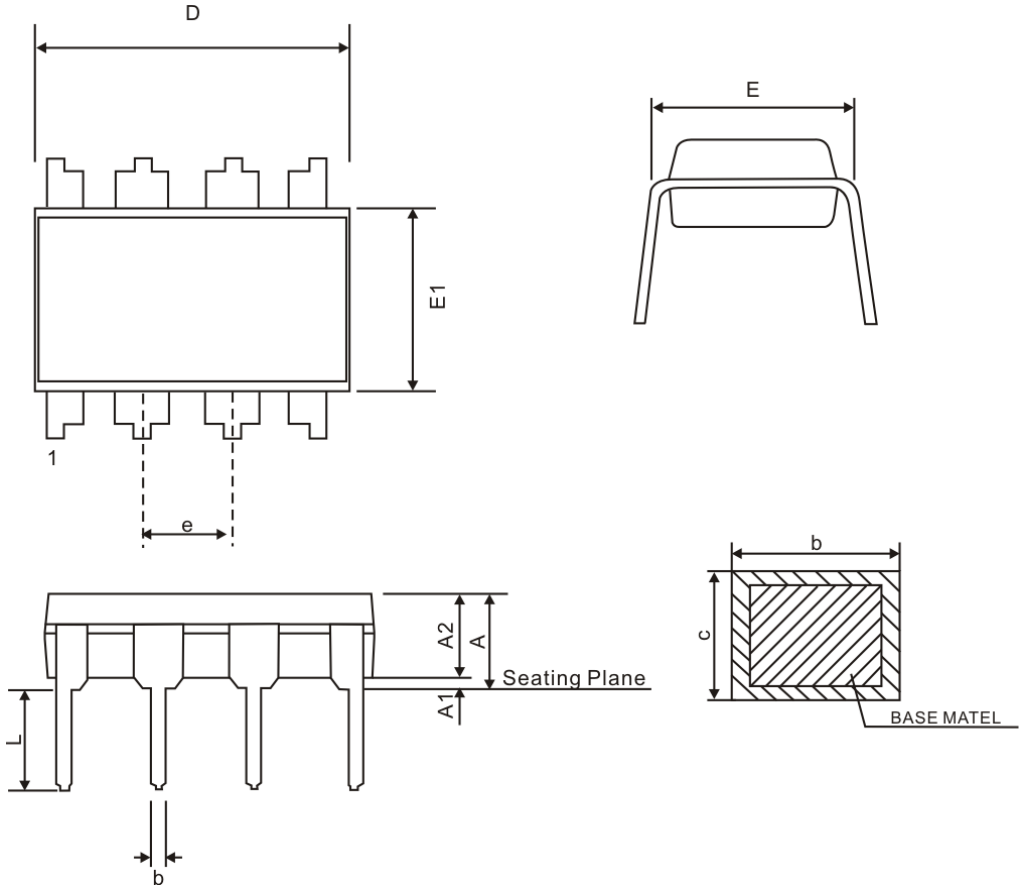
ELECTRICAL CHARACTERISTICS

(Unless otherwise stated, VDD=5V, VSS=0V, Ta=25℃, fin=1KHz, RL=32Ω)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Signal supply voltage	VDD	-	3.0	5.0	7.0	V
Dual supply voltage			1.5	2.5	3.5	
Negative power voltage	VSS	-	-1.5	-2.5	-3.5	V
Supply current	IDD	No Load	-	7.0	-	mA
Total power dissipation	Ptot	No Load	-	35	-	mW
Maximum output power	Po	-	-	60	-	mW
Total harmonic distortion	THD	Vo(p-p)=3.5V	-	0.03	0.06	%
		Vo(p-p)=3.5V RL=5KΩ	-	0.001	-	
Signal-to-noise ratio	S/N	-	100	110	-	dB
Channel separation	α_{cs}	-	-	70	-	dB
		RL=5KΩ	-	105	-	
Power supply ripple rejection	PSRR	fin=100Hz; Vripple(p-p)=100mV	-	90	-	dB
Maximum input voltage	VImax	THD<0.1%	-	1.4	-	V
Output resistance	ROUT	-	-	2	-	Ω

PACKAGE INFORMATION

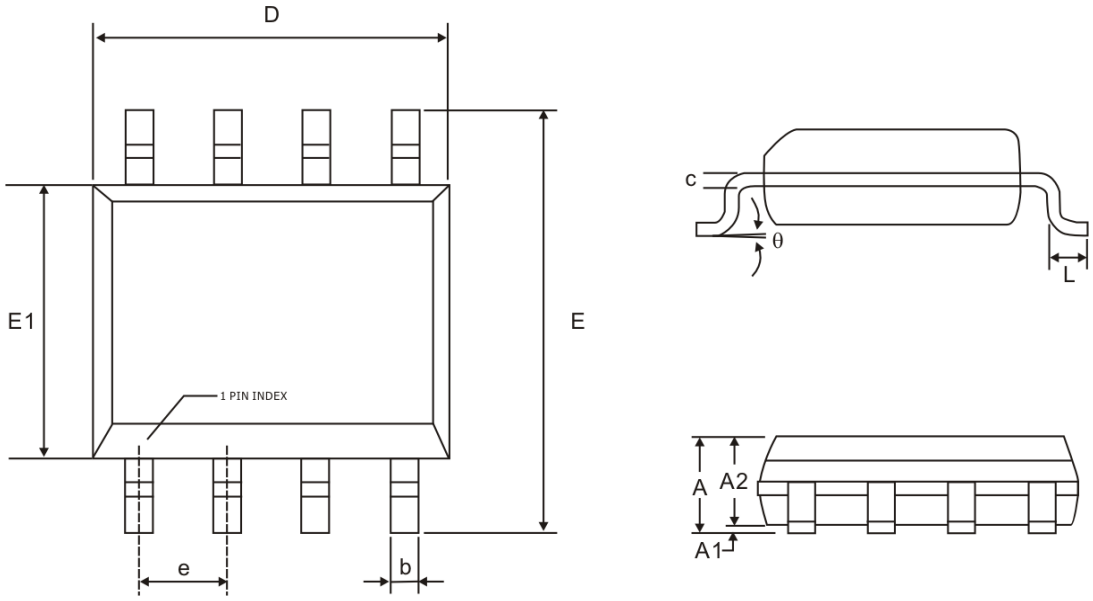
8 PINS, DIP, 300MIL



Symbol	Millimeter		
	Min.	Nom.	Max.
A	-	-	4.80
A1	0.50	-	-
A2	3.10	3.30	3.50
b	0.38	-	0.55
c	0.21	-	0.35
D	9.10	9.20	9.30
E	7.62	7.87	8.25
E1	6.25	6.35	6.45
e		2.54BSC	
L	2.92	3.30	3.81

Notes:
1. Refer to JEDEC MS-001, Variation BA
2. All dimensions are in millimeter

8 PINS, SOP, 150MIL



Symbol	Millimeter		
	Min.	Nom.	Max.
A	1.35	-	1.75
A1	0.10	-	0.25
A2	1.25	-	1.65
b	0.31	-	0.51
c	0.17	-	0.25
D	4.80	-	5.00
E	5.80	-	6.20
E1	3.80	-	4.00
e	1.27BSC		
L	0.40	-	1.27
θ	0°	-	8°

Notes:
1. Refer to JEDEC MS-012AA
2. All dimensions are in millimeter

IMPORTANT NOTICE

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