



## DESCRIPTION

The PT2332 is a CLASS-D power amplifier designed for audio equipments, maximum output power can reach up to 2.2W x 2 (VDD = 5V, RL = 4Ω, THD = 10%). The PT2332 composed of exclusively designed CLASS-D circuitry (patented) by PTC, along with the most advanced semi-conductor technology. When compared to the traditional CLASS-AB amplifiers, the PT2332's has a much higher efficiency (> 80%), low heat dissipation, and produces superior audio quality. PT2332's external circuitry is simple and easily accessible, and consists of flawless self-protection capabilities. The chip's packaging is small, thus it occupies an insignificant amount of space on the circuit board; therefore, making it the predominant choice when it comes to audio amplifiers.

## FEATURES

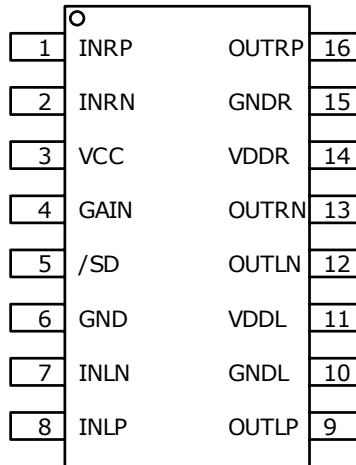
- CMOS Technology
- Stereo differential analogue input
- Maximum output power 2.2W(4Ω) × 2 @ THD=10%
- Output low-pass LC filter is not necessary
- Preset 2 voltage gain selection (20dB and 26dB)
- Contains shutdown function
- POP noise free in shutdown changed and power ON/OFF period
- Built-in short circuit protection
- Built-in overheat protection
- Low harmonic distortion (0.1%), superior sound quality
- High efficiency (8Ω load > 85%), low heat dissipation
- SOP-16 pins and SSOP-16 pins, miniature packages

## APPLICATIONS

- Portable Media Player
- Portable DVD Player
- LCD Monitor
- Small multimedia speakers
- Hand-free phone
- Laptop
- Other audio applications



## PIN CONFIGURATION



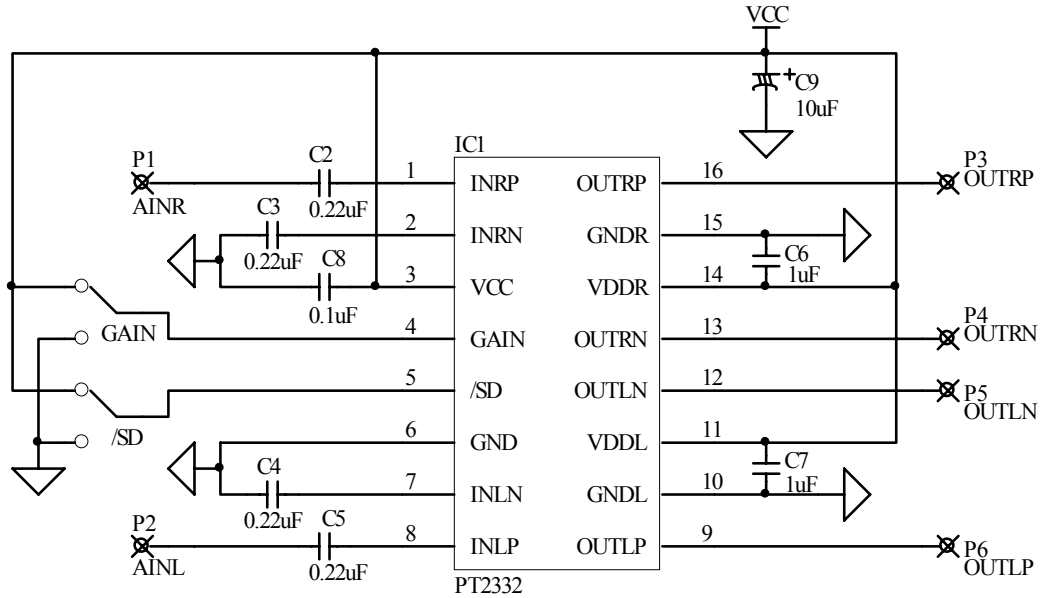
## PIN DESCRIPTION

Pin	I/O	Symbol	Function	Pin	I/O	Symbol	Function
1	I	INRP	Right channel input (+)	9	O	OUTLP	Left channel output (+)
2	I	INRN	Right channel input (-)	10	Power	GNDL	Ground (Left channel)
3	Power	VCC	Power input	11	Power	VDDL	Left channel power input
4	I	GAIN	Gain setting	12	O	OUTLN	Left channel output (-)
5	I	/SD	Shutdown	13	O	OUTRN	Right channel output (-)
6	Power	GND	Ground	14	Power	VDDR	Right channel power input
7	I	INLN	Left channel input (-)	15	Power	GNDR	Ground (Right channel)
8	I	INLP	Left channel input (+)	16	O	OUTRP	Right channel output (+)



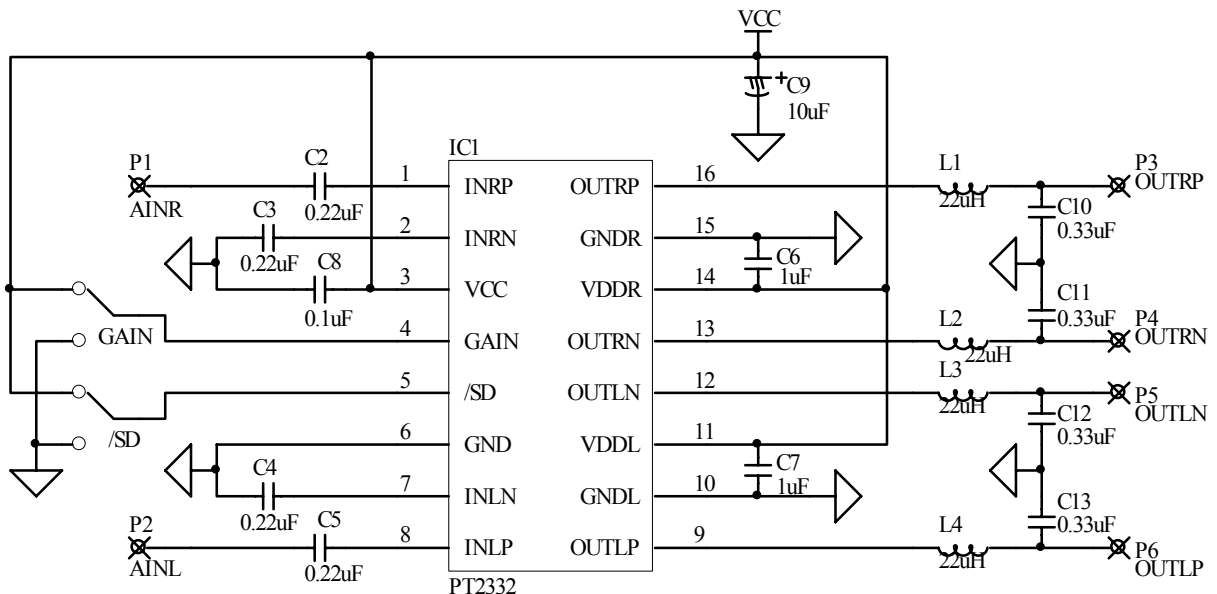
# APPLICATION CIRCUIT DIAGRAM

## (1) DIRECT DRIVING LOAD



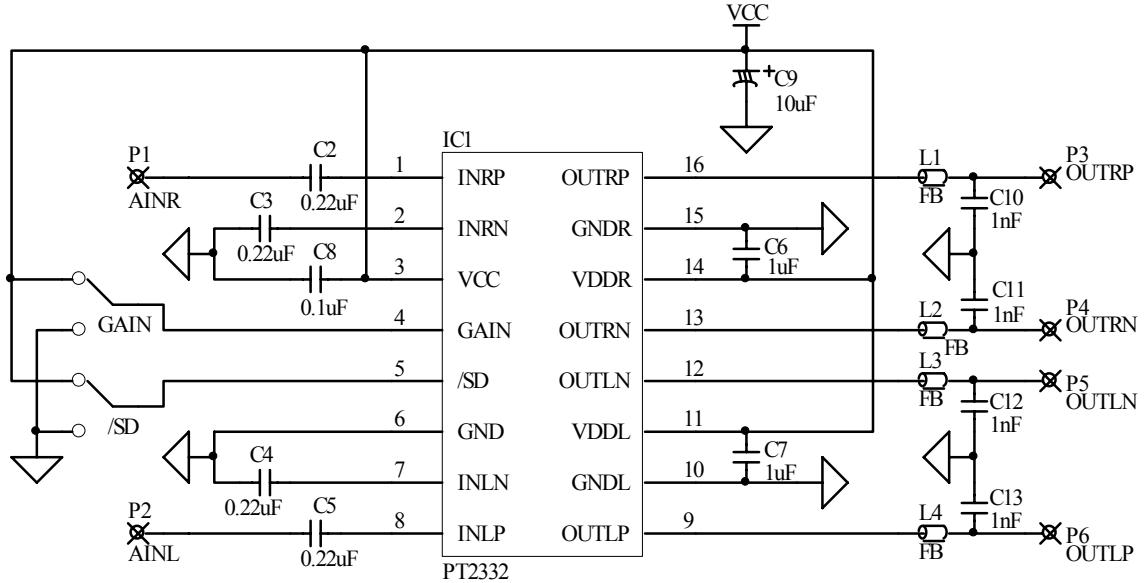
(The system must have well radiation shielded in direct driving load)

## (2) OPERATION USING OUTPUT FILTER





(3) OPERATION WITH FERRITE BEAD AT THE OUTPUT



Ferrite Bead specification:  $Z=80\Omega@100\text{MHz}$



## ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2332-S	16 Pins, SOP, 150mil	PT2332-S
PT2332-X	16 Pins, SSOP, 150mil	PT2332-X