

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.

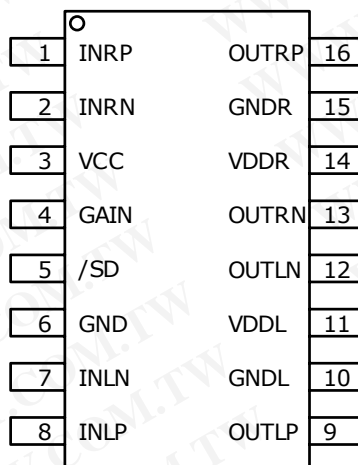
FEATURES

- 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

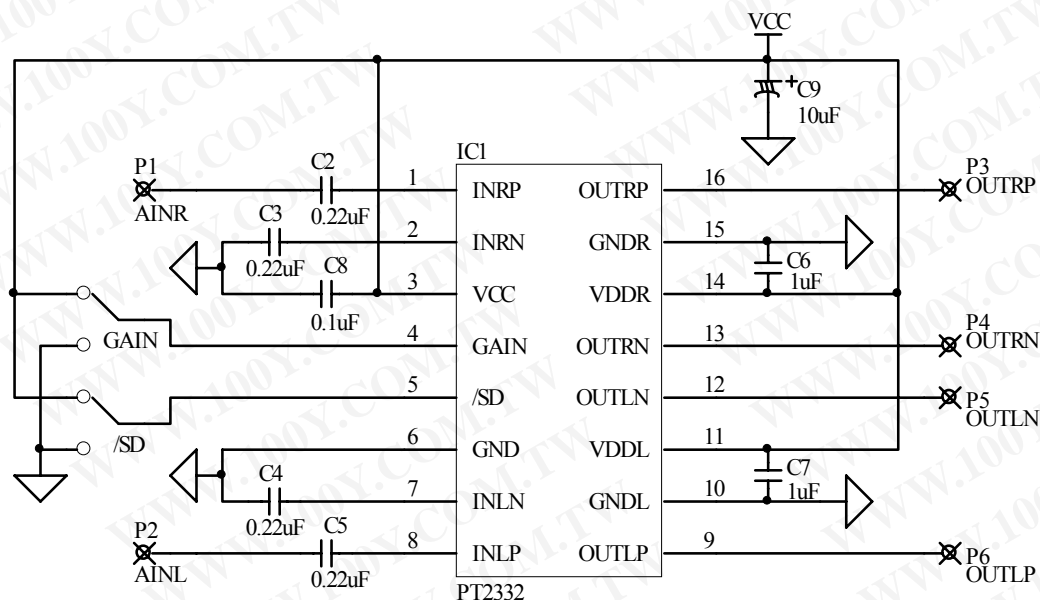


PIN DESCRIPTION

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 (+)

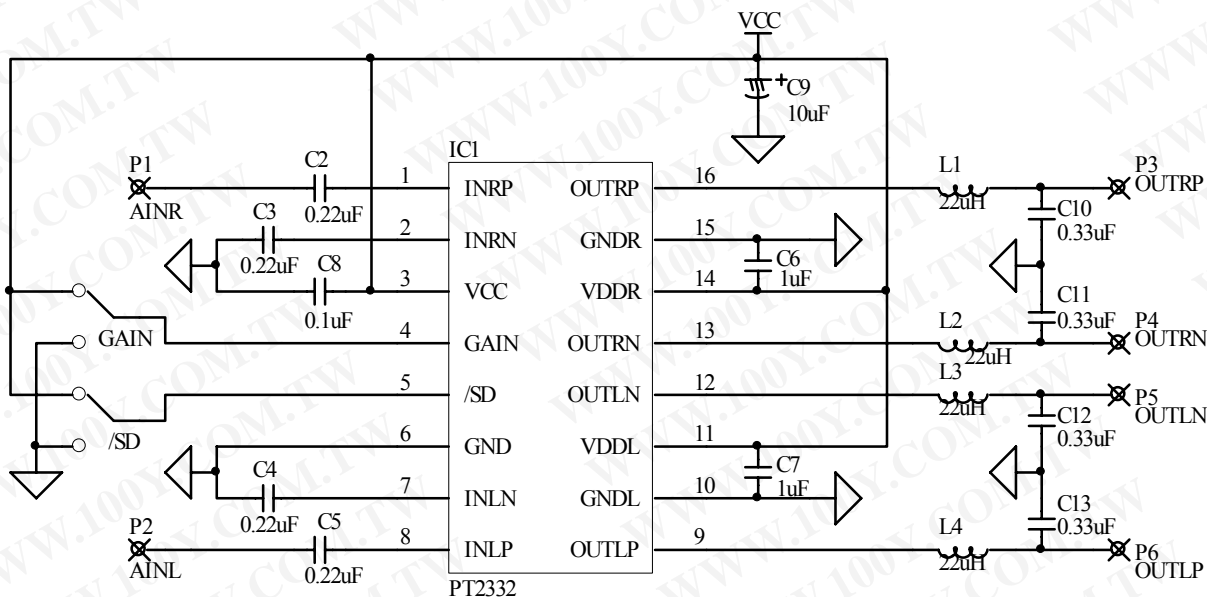
APPLICATION CIRCUIT DIAGRAM

(1) DIRECT DRIVING LOAD

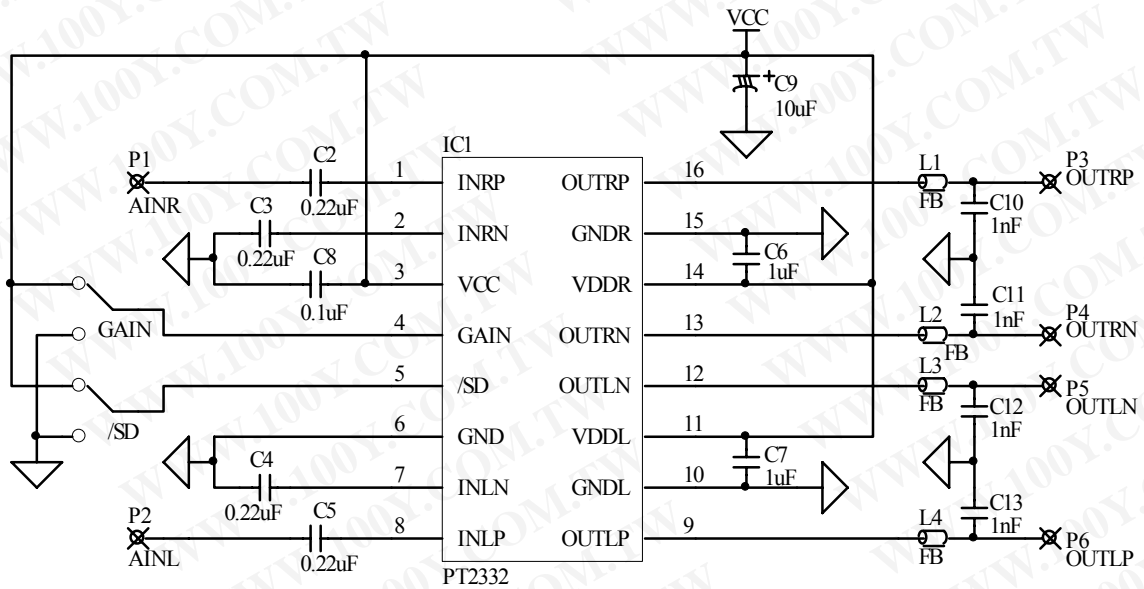


(The system must have well radiation shielded in direct driving load)

(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