

DESCRIPTION

The PT2832 is a Class-D power amplifier designs for audio system; the maximum output power could up to 22W x 2. It is housing in a small, thermal enhanced package, the best benefits of the PT2832 are high efficiency and less external components. Fabricated by high voltage BCD process to improve ESD and electro stress handling capabilities.

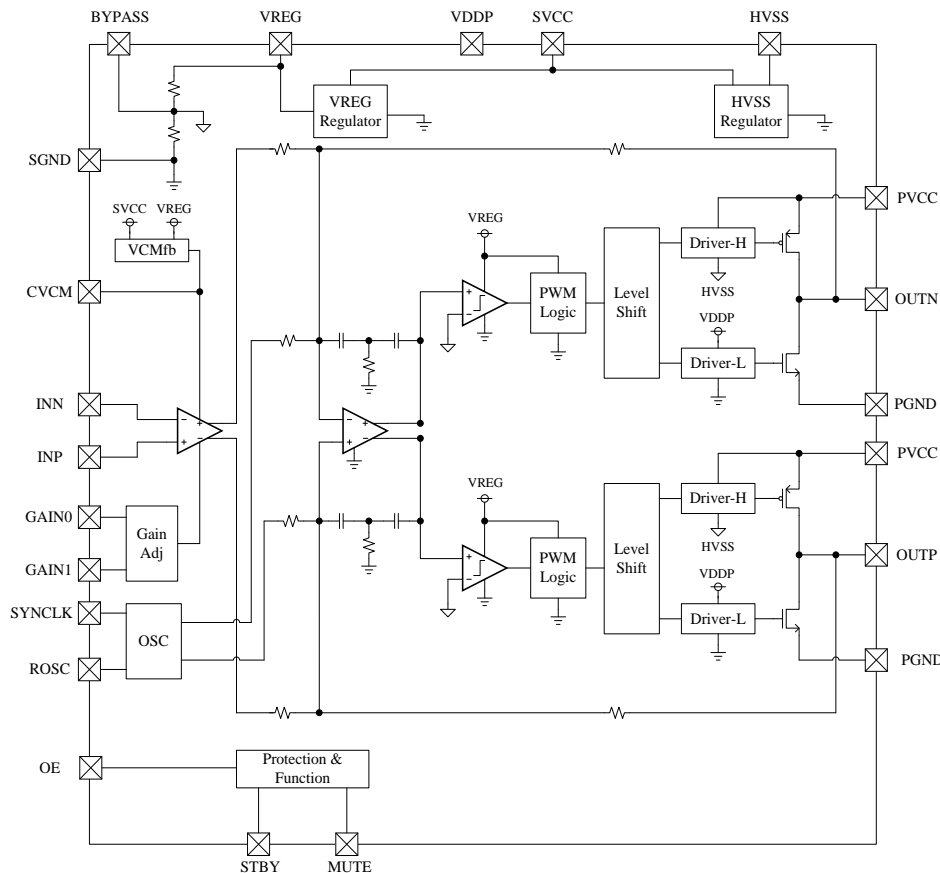
APPLICATIONS

- Sound Bar
- Mini Audio System
- Docking Speaker System
- Consumer Audio Applications

FEATURES

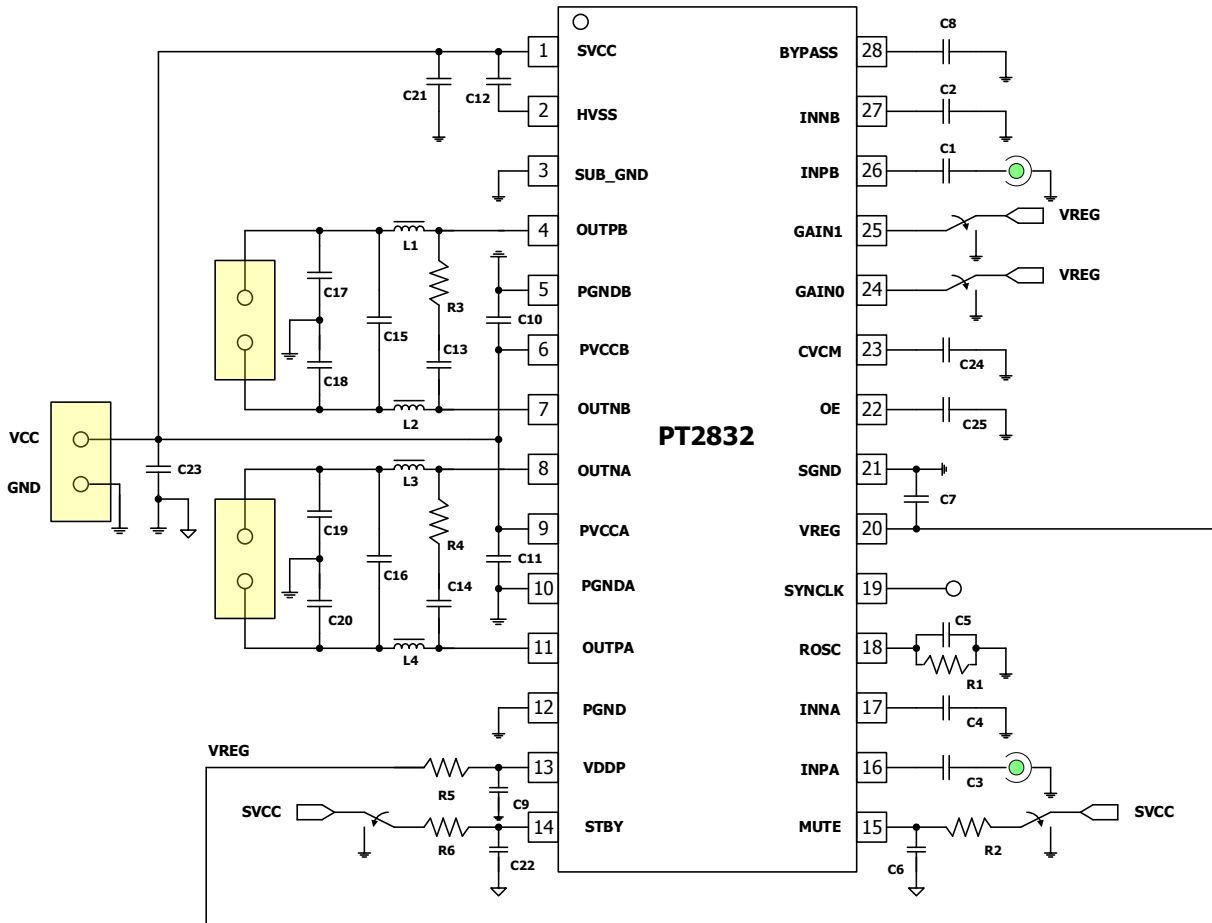
- Supports Multiple Output Configurations (THD=10%)
 - 2 x 5W into a 8Ω BTL at 9V
 - 2 x 10W into a 8Ω BTL at 12V
 - 2 x 15W into a 8Ω BTL at 15V
 - 2 x 22W into a 8Ω BTL at 18V
- 4Ω minimum load
- Single power supply reduces component count (Built-in 5V regulator)
- Master/Slave Synchronization
- 4 voltage gains setting
- Power ON de-pop enable
- Integrated Self-Protection Circuits including Under / Over supply voltage, short circuit and over temperature protection
- Wide Voltage Range: 4.5V~20V
- Small size 28 Pins HT-SSOP package with thermal pad

BLOCK DIAGRAM



*Shows the block diagram of one of the two identical channels

APPLICATION CIRCUIT



LC Filter components		
R_load	L1, L2, L3, L4	C15, C16
4Ω	15uH	470nF
6Ω	22uH	220nF
8Ω	33uH	220nF

PARTS RECOMMENDATION

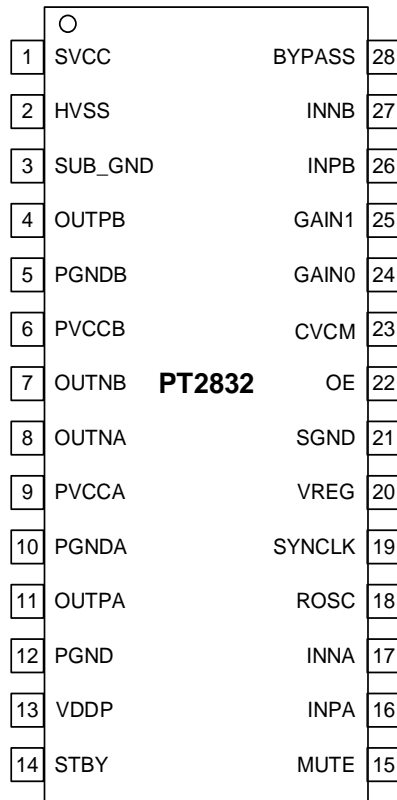
Capacitor	Resistor
C1, C2, C3, C4---0.47μF	R1---39KΩ
C5, C10, C11, C12, C17~C21---0.1μF	R2, R6---33KΩ
C6, C8, C22 ---2.2μF	R3, R4, R5---22Ω
C7, C9,---1μF	
C13, C14---330pF	
C23---1000μF	
C25---0.22μF	
C24---4.7μF	

For better THD+N performance the X7R material SMD capacitor is recommended.

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2832-HT	28 pins, HTSSOP, 173mil	PT2832-HT

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
SVCC	Power	Signal power supply	1
HVSS	O	Regulator output referred to power supply	2
SUB_GND	Power	Connect to the frame	3
OUTPB	O	Positive PWM for right channel	4
PGNDB	Power	Power stage ground for right channel	5
PVCCB	Power	Power supply for right channel	6
OUTNB	O	Negative PWM output for right channel	7
OUTNA	O	Negative PWM output for left channel	8
PVCCA	Power	Power supply for left channel	9
PGNDA	Power	Power stage ground for left channel	10
OUTPA	O	Positive PWM for left channel	11
PGND	Power	Power stage ground	12
VDDP	I	Regulator output referred to ground for power stage	13
STBY	I	Standby mode control	14
MUTE	I	Mute mode control	15
INPA	I	Positive differential input of left channel	16
INNA	I	Negative differential input of left channel	17
ROSC	O	Master Oscillator frequency-setting pin	18
SYNCLK	I/O	Clock in/out for external oscillator	19
VREG	O	Regulator output referred to ground for power stage	20
SGND	Power	Signal ground	21
OE	O	Open-drain diagnostic output	22
CVCM	O	Supply voltage rejection	23
GAIN0	I	Gain setting input 1	24
GAIN1	I	Gain setting input 2	25
INPB	I	Positive differential input of right channel	26
INNB	I	Negative differential input of right channel	27
BYPASS	O	Half VREG referred to ground	28

IMPORTANT NOTICE

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PTC cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a PTC product. No circuit patent licenses are implied.

Princeton Technology Corp.
2F, 233-1, Baociao Road,
Sindian Dist., New Taipei City 23145, Taiwan
Tel: 886-2-66296288
Fax: 886-2-29174598
<http://www.princeton.com.tw>