

75W PBTL/30W BTL Class D Stereo Amplifier with AM Avoidance

■ FEATURE

- Output Power (BTL)
 - 2 × 30W ($V_{DD}=24V$, $R_L=8\Omega$, THD+N=1%)
 - 2 × 23W ($V_{DD}=14V$, $R_L=4\Omega$, THD+N=10%)
- Output Power (PBTL)
 - 75W ($V_{DD}=24V$, $R_L=4\Omega$, THD+N=10%)
- Single Wide Voltage Supply: 4.5V-26V
- Efficiency > 90%
- Optional Power Limit Functions: AGC and Power Clipper (PCLP)
- Integrated Thermal Foldback (TFB) Function
- Differential / Single-ended Analog Input, BTL or PBTL Output
- Multiple Switching Frequency
- Integrated Self-protection Circuits Including Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent with Error Reporting
- LF and HF Package of TSSOP28-PP

■ APPLICATIONS

- Sound Bars • Wireless Speakers
- Consumer Audio Applications • TVs/Monitors

■ GENERAL DESCRIPTION

HT317 is a stereo efficient, Class-D audio amplifier for driving speakers up to 75W/4Ω in mono PBTL. It can also deliver 2 × 30W/8Ω power in stereo BTL.

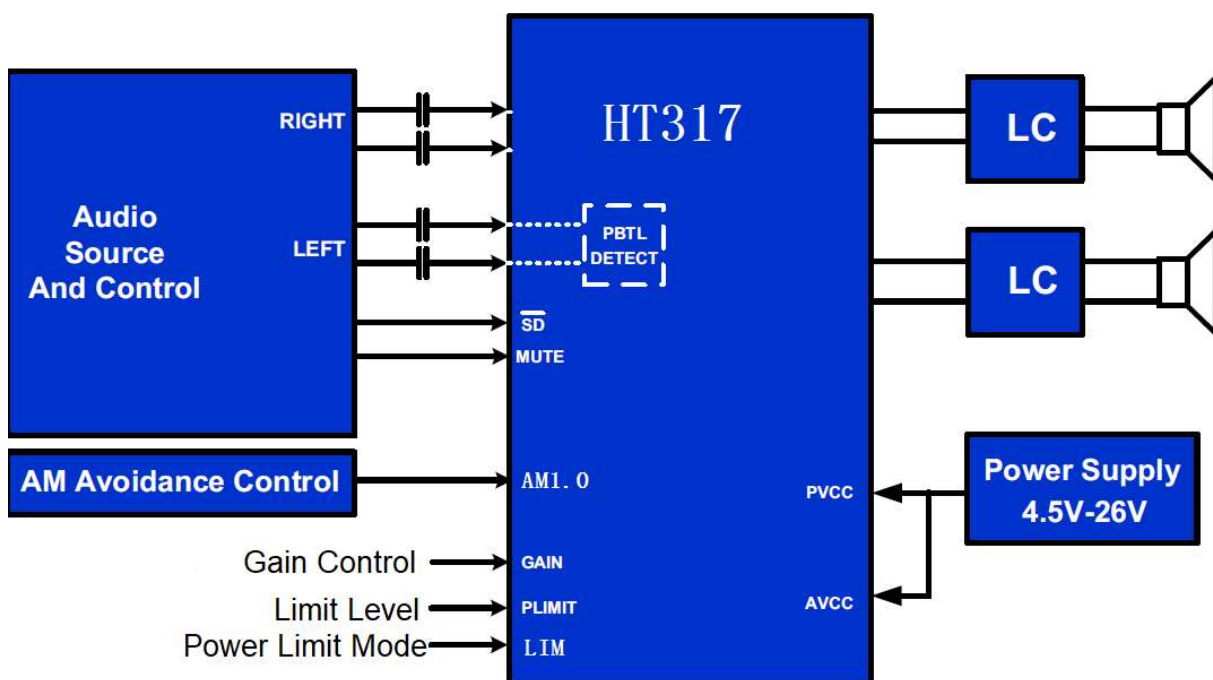
HT317 features 2 different power limit functions. One is power clipper (PCLP), which can clip the output voltage under a preset level; another one is AGC which can limit the output music under a preset level without clipping.

Thermal Foldback (TFB) function is designed to protect HT317 from excessive die temperature in case of the device being operated beyond the recommended temperature or power, or with a weak thermal system, without shutting the device down.

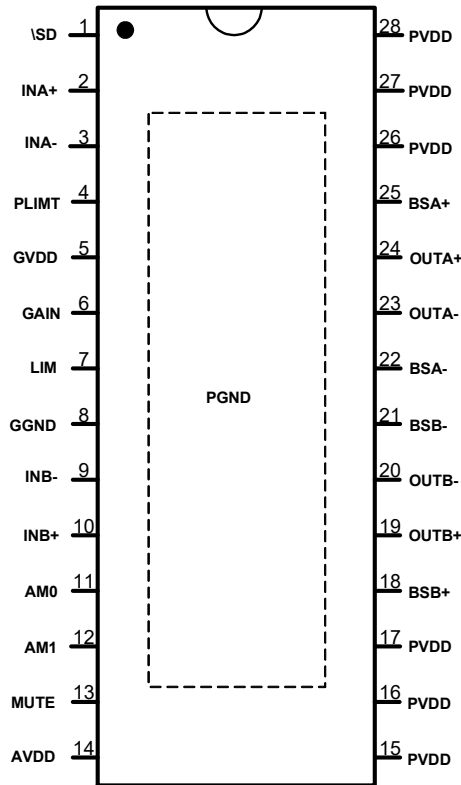
Multiple switching Frequency is selectable for HT317 to avoid AM interferences.

HT317 is fully protected against faults with Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent protection. Faults can be reported to the processor to prevent devices from being damaged

■ TYPICAL APPLICATION



■ TERMINAL CONFIGURATION



TSSOP28L-PP Top View

Pin No.	Name	I/O ¹	Description
1	\SD/FAULT	I	SD/FAULT, multi function pin. When pulled down, place the speaker amplifier in shutdown mode. General fault reporting including Over-Temp, Over-Current, DC Detect.
2	INA+	I	Positive input terminal for A channel
3	INA-	I	Negative input terminal for A channel
4	PLIMIT	I	Set the maximum output voltage before clipping (Limiter Level)
5	GVDD	O	Voltage regulator derived from PVDD supply, connect 1uF to GND (NOTE: This pin is provided as a connection point for filtering capacitors for this supply and must not be used to power any external circuitry)
6	GAIN	I	Adjust the gain of the speaker amplifier
7	LIM	I	Select the mode of Digital Output Clipper or AGC
8	GGND	G	Ground for gate drive circuitry (this terminal should be connected to the system ground)
9	INB-	I	Negative input terminal for B channel
10	INB+	I	Positive input terminal for B channel
11	AM0	I	AM Avoidance Frequency Selection
12	AM1	I	AM Avoidance Frequency Selection
13	MUTE	I	Mute control terminal, the amplifier is muted when it is pulled high
14	AVDD	P	Analog power supply
15,16,17	PVDD	P	Power Supply for amplifier drivers of B channel
18	BSB+	BST	Connection point for the OUTB+ bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTB+
19	OUTB+	O	Positive pin for differential speaker amplifier output B
20	OUTB-	O	Negative pin for differential speaker amplifier output B
21	BSB-	BST	Connection point for the OUTB- bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTB-

¹ I: Input; O: Output; G: Ground; P: Power; BST: Boot Strap

22	BSA-	BST	Connection point for the OUTA- bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTA-
23	OUTA-	O	Negative pin for differential speaker amplifier output A
24	OUTA+	O	Positive pin for differential speaker amplifier output A
25	BSA+	BST	Connection point for the OUTA+ bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTA
26,27,28	PVDD	P	Power Supply for amplifier drivers of A channel
PAD	PGND	G	Power ground, make sure connect it to the system ground

ORDERING INFORMATION

Part Number	Package Type	Marking	Operating Temperature Range	MOQ/Shipping Package
HT317MTET	TSSOP28L-PP	HT317MTE UVWXYZ ¹	-40°C ~ 85°C	30PCS / Tube

¹ UVWXYZ is production tracking code

IMPORTANT NOTICE**注意**

Jiaxing Heroic Electronic Technology Co., Ltd (HT) reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any products or services. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete.

嘉兴禾润电子科技有限公司（以下简称HT）保留对产品、服务、文档的任何修改、更正、提高、改善和其他改变，或停止提供任何产品和服务的权利。客户在下单和生产前应确保所得到的信息是最新、最完整的。

HT assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using HT components.

HT对相关应用的说明和协助以及客户产品的板级设计不承担任何责任。

HT products are not authorized for use in safety-critical applications (such as life support devices or systems) where a failure of the HT product would reasonably be expected to affect the safety or effectiveness of that devices or systems.

HT的产品并未授权用于诸如生命维持设备等安全性极高的应用中。

The information included herein is believed to be accurate and reliable. However, HT assumes no responsibility for its use; nor for any infringement of patents or other rights of third parties which may result from its use.

本文中的相关信息是精确和可靠的，但HT并不对其负责，也不对任何可能的专利和第三方权利的伤害负责。

Following are URLs and contacts where you can obtain information or supports on any HT products and application solutions:

下面是可以联系到我公司的相关链接和联系方式：

嘉兴禾润电子科技有限公司**Jiaxing Heroic Electronic Technology Co., Ltd.**

地址：浙江省嘉兴市凌公塘路3339号JRC大厦A座三层

Add: A 3rd floor, JRC Building, No. 3339, LingGongTang Road, Jiaxing, Zhejiang Province

Sales: 0573-82585539, sales@heroic.com.cn

Support: 0573-82586151, support@heroic.com.cn

Fax: 0573-82585078

Website: www.heroic.com.cn; wap.heroic.com.cn

Wechat MP: HEROIC_JX

请及时关注禾润官方微信公众号，随时获取最新产品信息和技术资料！

