

2×75W D类立体声音频功放

2×75W Class D Stereo Amplifier

■ FEATURES

- Output Power (BTL)
 - 2×60W (VDD=24V, RL=4Ω, THD+N=1%)
 - 2×75W (VDD=24V, RL=4Ω, THD+N=10%)
- Output Power (PBTL)
 - 115W (VDD=24V, RL=2Ω, THD+N=1%)
 - 140W (VDD=24V, RL=2Ω, THD+N=10%)
- Single Wide Voltage Supply: 4.5V-26V
- Efficiency > 93%
- Spread spectrum function
- MUTE function
- Differential / Single-ended Analog Input, BTL
- Selectable Gain: 32dB or 26dB
- Integrated Self-protection Circuits Including Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent with Error Reporting
- LF and HF Package of ETSSOP28, EPAD up
- 输出功率 (BTL)
 - 2×60W (VDD=24V, RL=4Ω, THD+N=1%)
 - 2×75W (VDD=24V, RL=4Ω, THD+N=10%)
- 输出功率 (PBTL)
 - 115W (VDD=24V, RL=2Ω, THD+N=1%)
 - 140W (VDD=24V, RL=2Ω, THD+N=10%)
- 单电源系统, 4.5V-26V宽电压输入范围
- 超过93%效率, 需散热器
- 扩频功能
- MUTE功能
- 模拟差分/单端输入, 输出立体声
- 可选增益: 32dB/26dB
- 保护功能: 过压/过流/过热/欠压异常, 直流检测和短路保护
- 无铅无卤封装, ETSSOP28, 顶部散热片

■ APPLICATIONS

- Sound Bars
- Wireless Speakers
- 条形音箱
- 无线智能音箱
- Consumer Audio Applications
- TVs/Monitors
- 便携式音箱
- 消费类音频应用
- 拉杆音箱
- LCD电视/监视器

■ DESCRIPTION

HT3382 is a stereo efficient, Class-D audio amplifier for driving speakers up to 75W/4 Ω in stereo BTL, with a small heat-sink attached to its top side EPAD.

Spread spectrum function is available to achieve advanced EMI Suppression.

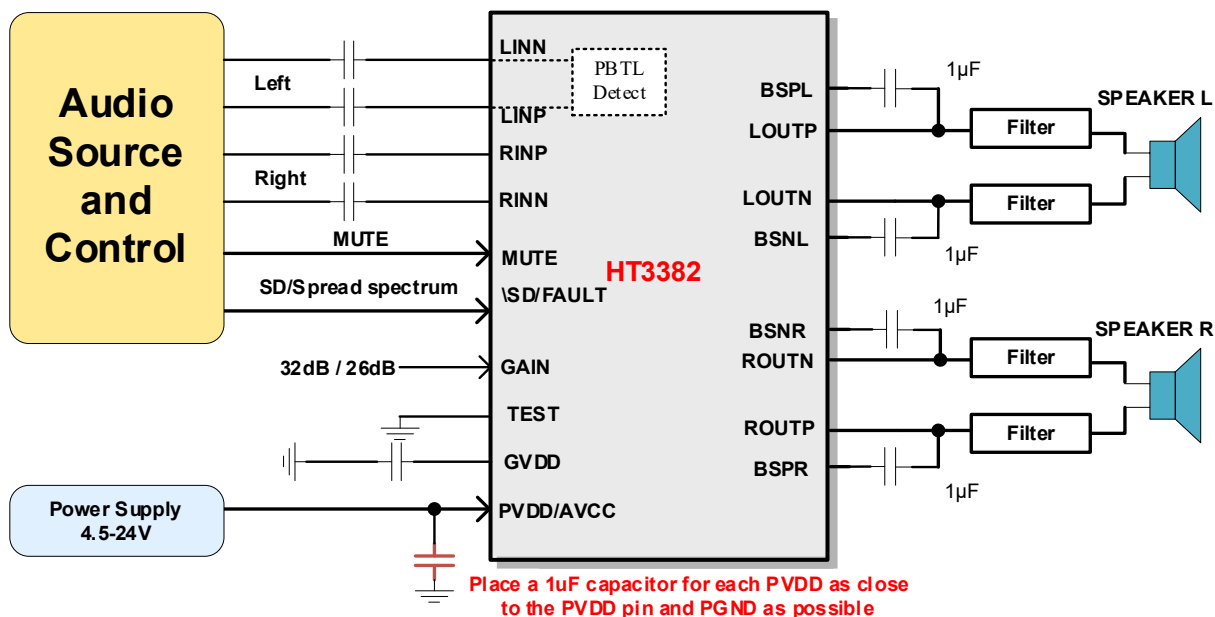
The built-in shutdown function can minimize the standby current of HT3382. The device also integrates MUTE function. HT3382 is fully protected against faults with Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent protection. Faults can be reported to the processor to prevent devices from being damaged.

HT3382是一款高效D类音频功率放大器。在其顶部散热PAD上连接一个小型散热器后, 在24V供电的立体声 (BTL)、THD+N=10%条件下, 能够持续提供2×75W/4 Ω 功率输出。

HT3382具有先进的扩频功能来抑制EMI。

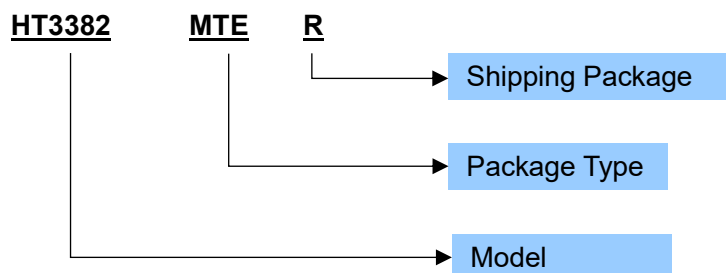
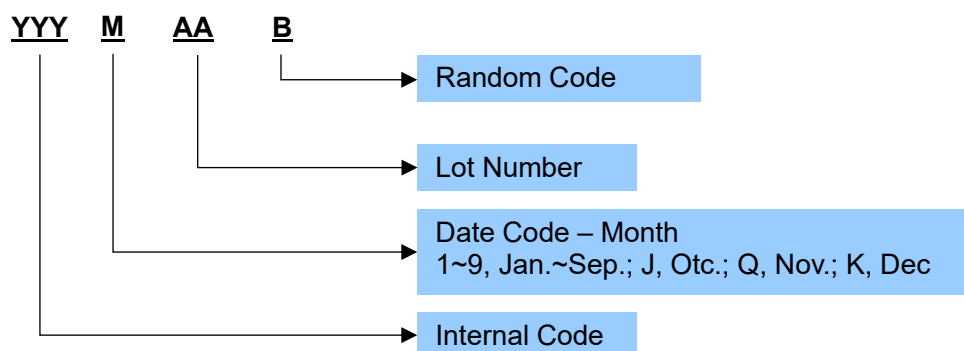
此外, HT3382内置关断功能使待机电流最小化, 同时内置了MUTE功能, 还集成了过压保护、直流保护、短路保护、热保护和电源欠压异常保护等功能, 可全面防止出现故障。

TYPICAL APPLICATION



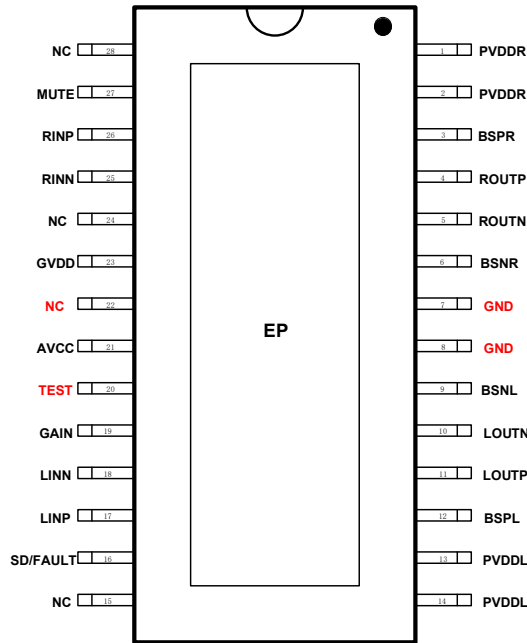
ORDERING INFORMATION

Part Number	Package Type	Marking	Operating Temperature Range	Shipping Package / MOQ
HT3382MTER	ETSSOP28 (MTE)	HT3382 YYYMAAB ¹	-40℃~85℃	Tape and Reel (R) / 3000pcs

Part Number

Production Tracking Code


¹ YYYMAAB is production tracking code
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■ TERMINAL CONFIGURATION



HT3382 Top View

■ TERMINAL FUNCTION

Terminal No.	Name	I/O ¹	Description
1/2	PVDDR	P	Power Supply for amplifier drivers of R channel
3	BSPR	BST	Connection point for the ROUTP bootstrap capacitor, which is used to create a power supply for the high-side gate drive for ROUTP
4	ROUTP	O	Positive pin for differential speaker amplifier output R
5	ROUTN	O	Negative pin for differential speaker amplifier output R
6	BSNR	BST	Connection point for the ROUTN bootstrap capacitor, which is used to create a power supply for the high-side gate drive for ROUTN
7,8	GND	G	System ground.
9	BSNL	BST	Connection point for the LOUTN bootstrap capacitor, which is used to create a power supply for the high-side gate drive for LOUTN
10	LOUTN	O	Negative pin for differential speaker amplifier output L
11	LOUTP	O	Positive pin for differential speaker amplifier output L
12	BSPL	BST	Connection point for the LOUPT bootstrap capacitor, which is used to create a power supply for the high-side gate drive for LOUPT
13/14	PVDDL	P	Power Supply for amplifier drivers of L channel
15/24/28	NC	-	NC, Connect to Ground for better thermal performance
16	\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.
17	LINP	I	Positive input terminal for L channel
18	LINN	I	Negative input terminal for L channel
19	GAIN	I	Gain select pin. Low = 26dB gain; High or floating = 32dB
20	TEST	I	Test mode select pin. Connect to GND
21	AVCC	P	Analog power supply.
22	NC	-	Left floating, Do not connect to GND and any other electrical point.
23	GVDD	O	Voltage regulator derived from AVDD supply, connect 1uF to GND
25	RINN	I	Negative input terminal for R channel
26	RINP	I	Positive input terminal for R channel
27	MUTE	I	When pulled high, place the speaker amplifier in MUTE mode. When pulled low or be floating, place the speaker amplifier in normal operation.
-	EP	-	Thermal pad up, must be good connected to heat-sink for power dissipation.

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

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禾润电子科技（嘉兴）股份有限公司
Heroic Electronic Technology (Jiaxing) 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

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