

2×100W 双声道D类音频功放

100W Stereo Class D Amplifier

■ FEATURES

- Output Power
2×100W (VDD=32V, RL=6Ω, THD+N=10%)
2×90W (VDD=28V, RL=4Ω, THD+N=10%)
- Single Wide Voltage Supply: 4V-35V
- Low Quiescent Current: 20mA (VDD = 24V, with LC and Load)
- Anti-clipping Function (ACF)
- Power Limit (PLIMIT) function that can be used to clip the output voltage level below the supply rail
- Spread Switching Frequency, Inductor-free Operation
- Differential / Single-ended Analog Input
- Integrated Self-protection Circuits Including, Undervoltage, Overtemperature, and Overcurrent
- LF and HF Package of ETSSOP32, EP up
- 输出功率
2×100W (VDD=32V, RL=6Ω, THD+N=10%)
2×90W (VDD=28V, RL=4Ω, THD+N=10%)
- 单电源系统, 4V-35V宽电压输入范围
- 低静态电流: 20mA (VDD = 24V, 带LC 和负载)
- ACF防破音功能可选
- 功率限幅器功能
- 扩频功能, 免电感滤波
- 模拟差分/单端输入
- 保护功能: 过流/过热/欠压异常和短路保护
- 无铅无卤封装, ETSSOP32, 顶部散热片

■ APPLICATIONS

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

■ DESCRIPTION

HTA3336 is a mono efficient, Class D audio amplifier. The device can drive a speaker up to 2×100W/6 Ω at VDD = 32V.

Advanced EMI Suppression enables the use of inexpensive ferrite bead filters while meeting EMC requirements for system cost reduction.

HTA3336 is protected with Undervoltage, Overtemperature, and Overcurrent protection.

HTA3336 features Anti-Clipping Function (ACF) which detects output signal clip due to the over input signal and suppresses the output signal clip automatically. Also, the ACF function can adapt the output clip caused by power supply voltage down with battery. It can significantly improve the sound quality, creating a very comfortable musical enjoyment, and to protect the speakers from overload damage.

HTA3336是一款高效D类音频功率放大器。32V供电、THD+N=10%条件下,能够持续提供2×100W/6 Ω功率输出。

HTA3336具有先进的扩频功能来抑制EMI,使用价格低廉且小体积铁氧体磁珠可满足EMC要求。

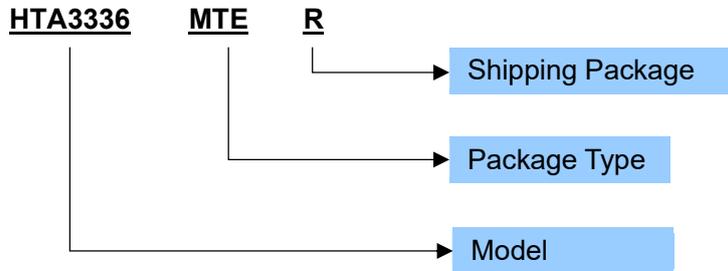
此外,HTA3336内置关断功能使待机电流最小化,还集成了短路保护、热保护和电源欠压异常保护等功能。

HTA3336具有防削顶失真(ACF)输出控制功能,可检测并抑制由于输入音乐、语音信号幅度过大所引起的输出信号削顶失真(破音),也能自适应地防止在电源电压下降所造成的输出削顶,显著提高音质,创造非常舒适的听音享受,并保护扬声器免受过载损坏。

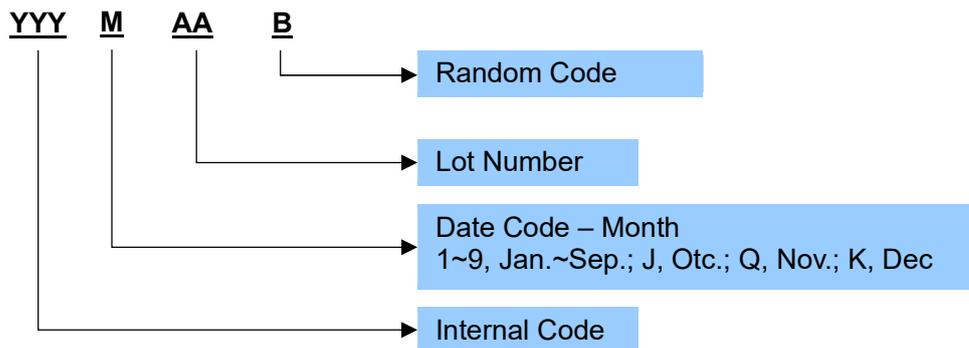
ORDERING INFORMATION

Part Number	Package Type	Marking	Operating Temperature Range	Shipping Package / MOQ
HTA3336MTER	ETSSOP32 (MTE)	HT3336 YYYMAAB ¹	-40°C ~ 85°C	Tape and Reel (R) / 3000pcs

Part Number

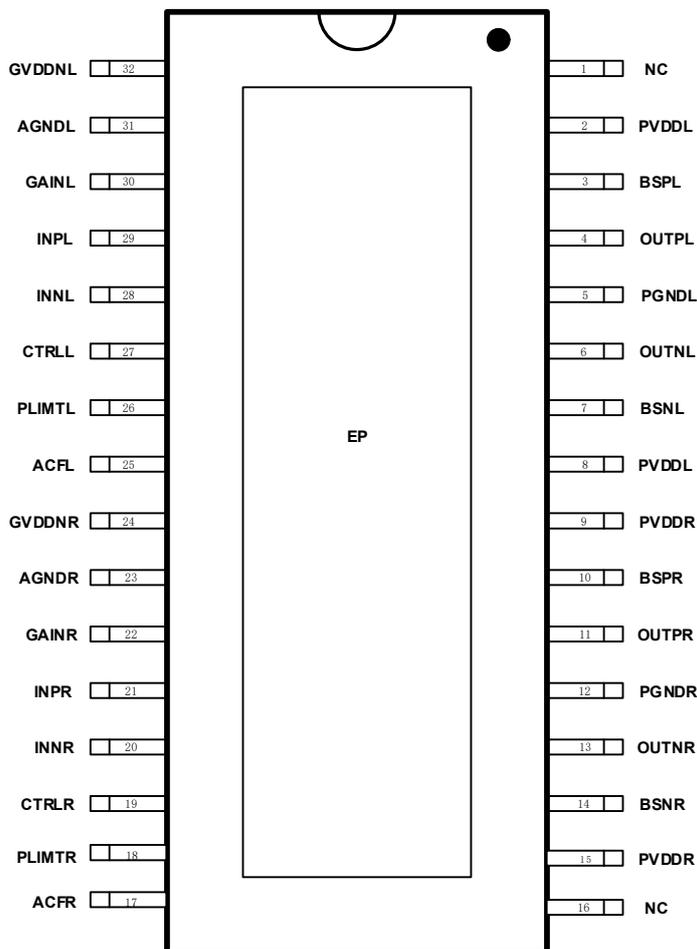


Production Tracking Code



¹ YYYMAAB is production tracking code

■ TERMINAL CONFIGURATION



Top View

■ TERMINAL FUNCTION

Terminal No.	Name	I/O ¹	Description
1,16	NC	-	No connection.
2,8	PVDDL	P	Power Supply for left channel power stage
3	BSPL	BST	Connection point for the OUTPL bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTPL
4	OUTPL	O	Positive pin for differential speaker amplifier output of left channel
5	PGNDL	G	Power Ground of left channel
6	OUTNL	O	Negative pin for differential speaker amplifier output of left channel
7	BSNL	BST	Connection point for the OUTNL bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTNL
9,15	PVDDR	P	Power Supply for right channel power stage
10	BSPR	BST	Connection point for the OUTPR bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTPR
11	OUTPR	O	Positive pin for differential speaker amplifier output of right channel
12	PGNDR	G	Power Ground of right channel
13	OUTNR	O	Negative pin for differential speaker amplifier output of right channel

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

14	BSNR	BST	Connection point for the OUTNR bootstrap capacitor, which is used to create a power supply for the high-side gate drive for OUTNR
17	ACFR	O	ACF mode and Mute mode selection terminal for right channel
18	PLIMTR	I	Sets the maximum output voltage before clipping (Limiter Level) for PLIMT function of right channel.
19	CTRLR	I	Working mode selection terminal of right channel
20	INNR	I	Negative input terminal of right channel
21	INPR	I	Positive input terminal of right channel
22	GAINR	I	Gain selection terminal of right channel
23	AGNDR	G	Analog ground of right channel
24	GVDDR	O	Internal LDO output for right channel, connect 1uF to GND
25	ACFL	O	ACF mode and Mute mode selection terminal for left channel
26	PLIMTL	I	Sets the maximum output voltage before clipping (Limiter Level) for PLIMT function of left channel.
27	CTRLL	I	Working mode selection terminal of left channel
28	INNL	I	Negative input terminal of left channel
29	INPL	I	Positive input terminal of left channel
30	GAINL	I	Gain selection terminal of left channel
31	AGNDL	G	Analog ground of left channel
32	GVDDL	O	Internal LDO output for left channel, connect 1uF to GND
EP	-	-	Thermal pad up, must be good connected to heat-sink for power dissipation. 朝上的散热 PAD, 需外接散热器