

免电感滤波2×30W D类立体声音频功放

2×30W Inductor Free Class D Stereo Amplifier

■ FEATURES

- Output Power (BTL)
2×20W (VDD=14.5V, RL=4Ω, THD+N=1%)
2×33W (VDD=22V, RL=8Ω, THD+N=10%)
- Output Power (PBTL)
50W (VDD=22V, RL=4Ω, THD+N=1%)
- Single Wide Voltage Supply: 4.5V-22V
- Efficiency > 90%
- Differential / Single-ended Analog Input, BTL or PBTL Output
- Gain: 32dB
- Spread Switching Frequency For Inductor Free
- Integrated Self-protection Circuits Including Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent with Error Reporting
- LF and HF Package of ESOP16

- 输出功率 (BTL模式)
2×20W (VDD=14.5V, RL=4Ω, THD+N=1%)
2×33W (VDD=22V, RL=8Ω, THD+N=10%)
- 输出功率 (PBTL模式)
50W (VDD=22V, RL=4Ω, THD+N=1%)
- 单电源系统, 4.5V-22V宽电压输入范围
- 超过90%效率, 无需散热器
- 扩频功能, 免电感滤波
- 模拟差分/单端输入, 输出模式立体声/单声道可选
- 增益: 32dB
- 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, ESOP16

■ APPLICATIONS

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

DESCRIPTION

HT326 is a stereo efficient, Class-D audio amplifier for driving speakers up to 50W/4 Ω in mono PBTL. It can also deliver 2×33W/8Ω power in stereo BTL.

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

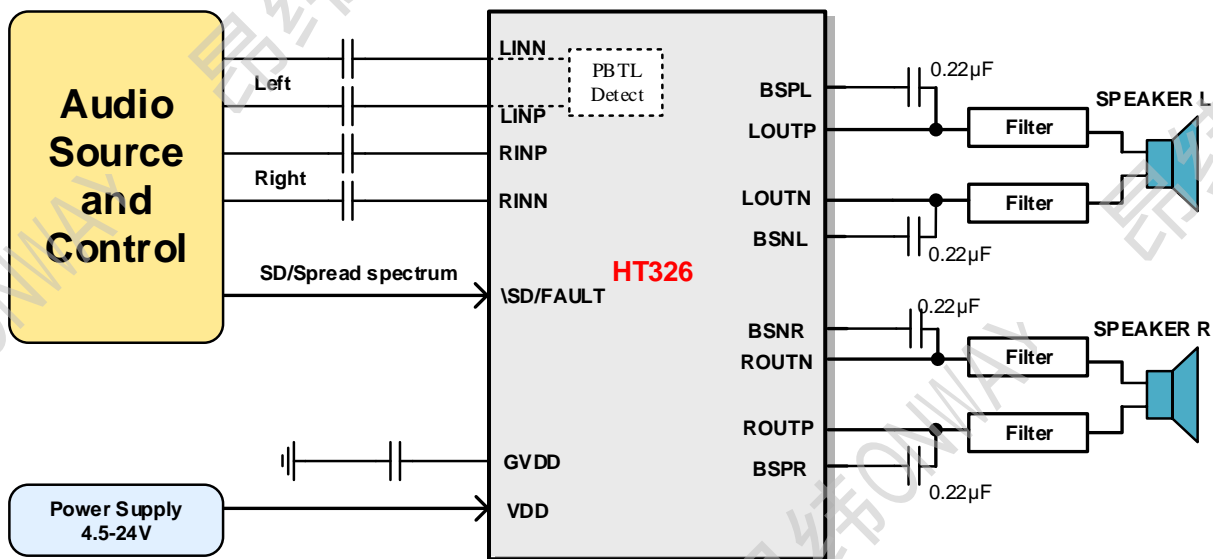
HT326 is fully protected against faults with Overvoltage, Undervoltage, Overtemperature, DC-detect, and Overcurrent protection. Faults can be reported to the processor to prevent devices from being damaged.

HT326是一款高效D类音频功率放大器。在22V供电的立体声（BTL）模式、THD+N=10%条件下，能够持续提供2*33W/8Ω功率输出；在单声道（PBTL）、模式、THD+N=1%条件下，能够持续提供50W/4Ω功率输出。

HT326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，HT326内置关断功能使待机电流最小化，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。。

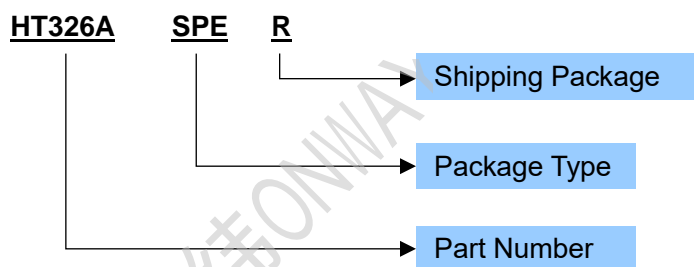
TYPICAL APPLICATION



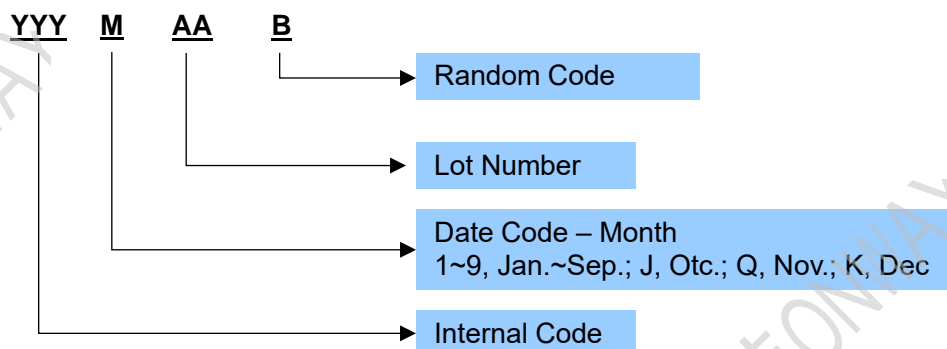
ORDERING INFORMATION

Ordering Number	Package Type	Marking	Operating Temperature Range	Shipping Package / MOQ
HT326ASPER	ESOP16 (SPE)	HT326A YYYMAAB ¹	-40℃~85℃	Tape and Reel (R) / 2500pcs
HT326ASPET	ESOP16 (SPE)	HT326A YYYMAAB	-40℃~85℃	Tube (T) / 50pcs
HT326CSPER	ESOP16 (MPE)	HT326C YYYMAAB	-40℃~85℃	Tape and Reel (R) / 2500pcs
HT326CSPET	ESOP16 (MPE)	HT326C YYYMAAB	-40℃~85℃	Tube (T) / 50pcs

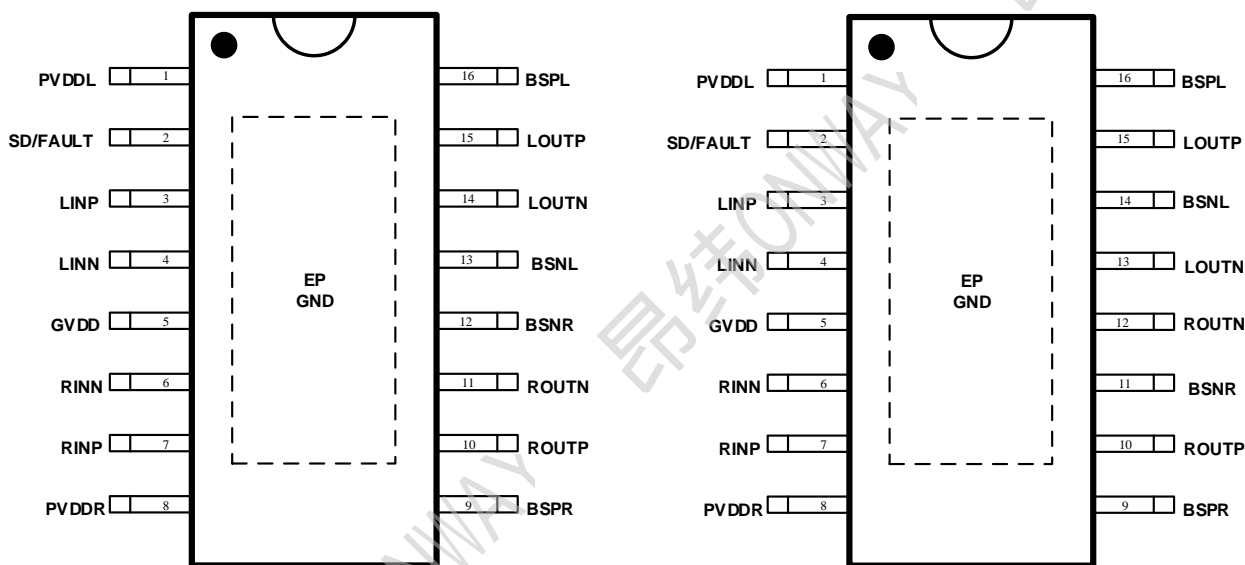
Ordering Number



Production Tracking Code



¹ YYYMAAB is production tracking code

■ TERMINAL CONFIGURATION

HT326A Top View
HT326C Top View
■ TERMINAL FUNCTION

Terminal No.		Name	I/O ¹	Description
HT326A	HT326C			
1	1	PVDDL	P	Power Supply for internal power circuitry of Channel L. 左声道功率电源
2	2	\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. 接地时功放关闭。发生过温、过流、DC等保护时，该引脚拉低
3	3	LINP	I	Positive input terminal for L channel. 左声道输入正端
4	4	LINN	I	Negative input terminal for L channel. 左声道输入负端
5	5	GVDD	O	Voltage regulator derived from PVDD supply. 内部整流输出，接1uF电容到地
6	6	RINN	I	Negative input terminal for R channel. 右声道输入负端
7	7	RINP	I	Positive input terminal for R channel. 右声道输入正端
8	8	PVDDR	P	Power Supply for internal power circuitry of Channel R. 右声道功率电源
9	9	BSPR	BST	Connection point for the ROU TP bootstrap capacitor, which is used to create a power supply for the high-side gate drive for ROU TP. ROU TP自举电容位
10	10	ROU TP	O	Positive pin for differential speaker amplifier output R. 右声道输出正端
11	12	ROU TN	O	Negative pin for differential speaker amplifier output R. 右声道输出负端
12	11	BSNR	BST	Connection point for the ROU TN bootstrap capacitor, which is used to create a power supply for the high-side gate drive for ROU TN. ROU TN自举电容位
13	14	BSNL	BST	Connection point for the LOU TLN bootstrap capacitor, which is used to create a power supply for the high-side gate drive for LOU TN. LOU TN自举电容位
14	13	LOU TN	O	Negative pin for differential speaker amplifier output L. 左声道输出负端
15	15	LOU TP	O	Positive pin for differential speaker amplifier output L. 左声道输出正端
16	16	BSPL	BST	Connection point for the LOU TP bootstrap capacitor, which is used to create a power supply for the high-side gate drive for LOU TP. LOU TP自举电容位
EP	EP	GND	G	Provides both electrical and thermal connection from the device to the Board, make sure it is connected to the system ground. 既是地，又是散热PAD

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