

## 双声道2x25W、无滤波器、D类音频功放

PRELIMINARY DATASHEET

## 器件描述

FH84225 是一款无需滤波器，每声道可输出 25W 的 D 类立体声音频功率放大器。FH84225 采用先进的技术，在全带宽范围内极大地降低了 EMI 干扰，最大限度地减少对其他部件的影响。其输出无需滤波器的 PWM 调制结构减少了外部元件、PCB 面积和系统成本。FH84225 工作在 PBTL 模式时，即为单声道音频功放。此时，输出驱动能力更强，功放效率更高。

FH84225 内置过流保护、过热保护及欠压保护功能，有效地保护芯片在异常工作状况下不被损坏。

FH84225 提供 TSSOP-24L 封装，额定的工作温度范围为-40℃至 85℃。

## Device Information (1)

PART NUMBER	PACKAGE	BODY SIZE (NOM)
FH84225	TSSOP (24L)	7.80mm x 5.80mm

(1) For all available packages, see the orderable addendum at the end of the data sheet.

## 典型应用电路

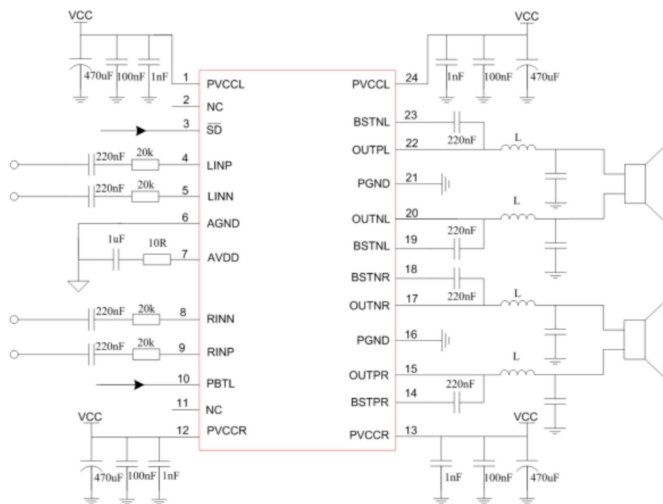


图 1 典型应用电路

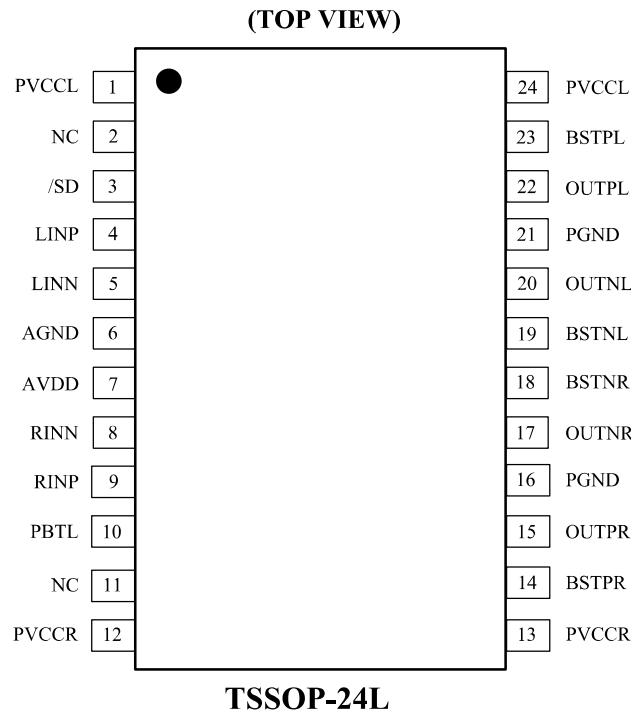
## 电气特性

- 输出功率：
  - 10Wx2 (8Ω负载 / VCC=12V / THD+N=10% / BTL 模式)
  - 17Wx2 (4Ω负载 / VCC=12V / THD+N=10% / BTL 模式)
  - 20Wx1 (4Ω负载 / VCC=12V / THD+N=10% / PBTL 模式)
  - 23Wx2 (8Ω负载 / VCC=18V / THD+N=10% / BTL 模式)
  - 46Wx1 (4Ω负载 / VCC=18V / THD+N=10% / PBTL 模式)
- 推荐工作电压：6.0V~18.0V
- PBTL 输出功能
- 无需滤波器设计
- 差分输入方式
- 效率高达 94% (8Ω负载/VCC=12V / Po=8Wx2)
- 优异的“上电，掉电”噪声抑制
- 过流保护、过热保护、欠压保护
- 封装形式 TSSOP-24L

## 应用领域

- 蓝牙音响
- 其他消费类音频设备

## 管脚分配图

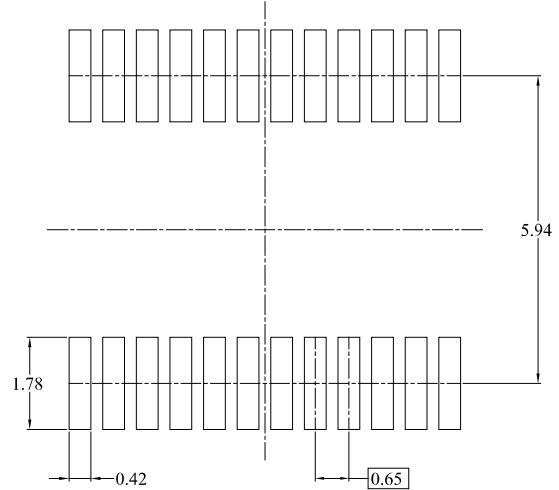
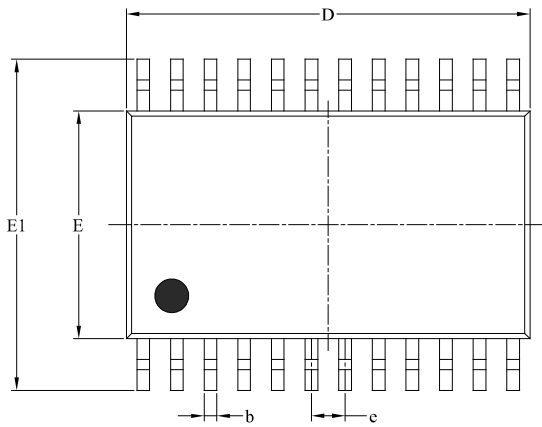


## 引脚功能描述

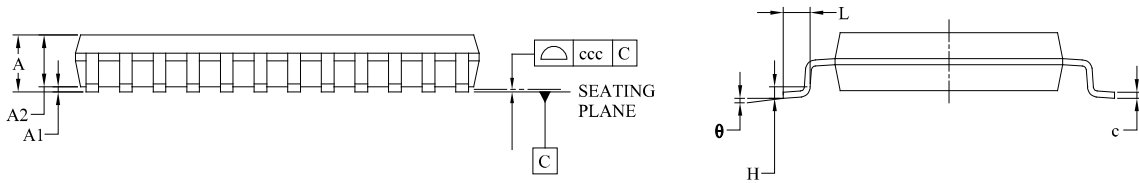
符号	管脚号	描述
PVCCL	1,24	左声道功率电源输入
NC	2	空脚
/SD	3	关断控制端(高电平开启, 低电平关断)
LINP	4	放大器左声道正输入端
LINN	5	放大器左声道负输入端
AGND	6	模拟地
AVDD	7	内部 LDO 外接去耦电容
RINN	8	放大器右声道负输入端
RINP	9	放大器右声道正输入端
PBTL	10	并联 BTL(PBTL)模式控制端
NC	11	空脚
PVCCR	12,13	右声道功率电源输入
BSTPR	14	右声道正半桥自举端
OUTPR	15	放大器右通道正输出端
PGND	16	功率地
OUTNR	17	放大器右通道负输出端
BSTNR	18	右声道负半桥自举端
BSTNL	19	左声道负半桥自举端
OUTNL	20	放大器左通道负输出端
PGND	21	功率地
OUTPL	22	放大器左通道正输出端
BSTPL	23	左声道正半桥自举端

## PACKAGE OUTLINE DIMENSIONS

Type: TSSOP-24L



RECOMMENDED LAND PATTERN (Unit: mm)



Symbol	Dimensions In Millimeters		
	MIN	MOD	MAX
A	-	-	1.200
A1	0.050	-	0.150
A2	0.800	-	1.050
b	0.190	-	0.300
c	0.090	-	0.200
D	7.700	-	7.900
E	4.300	-	4.500
E1	6.200	-	6.600
e	0.650 BSC		
L	0.450	-	0.750
H	0.250 TYP		
θ	0°	-	8°
ccc	0.100		

## ORDERING INFORMATION

Part Number	Input Voltage	Features	Operating Temperature	Package Type	Top Mark	SPQ
FH84225TS24	6.0V ~ 18.0V	<ul style="list-style-type: none"> <li>• Class-D audio amplifier</li> <li>• Dual channel 2*25W</li> <li>• Frequency: 280kHz</li> <li>• PSRR: -65dB (typ.)</li> </ul>	-40°C to +85°C	TSSOP-24L	FH84225 <u>YY WW LL</u>	2500EA/Reel 40EA/Tube

**Note:**

- **FH84225** devices are Pb-free and RoHs compliant.
- The surface prints of our semiconductor devices are subject to change during the production process and do not involve changes in electrical parameters, and we will not separately state the notice.
- If you have any other custom purchase needs, please contact our sales department.
- FOCMCU Inc. reserves the right to amend and legally interpret the electrical parameters of this chip device. (<http://www.fordevices.com>)



### ESD SENSITIVITY CAUTION

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.



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