单按键触摸检测开关 IC

PRELIMINARY DATASHEET

器件概述

FH8323Q 是一款电容式单按键触摸检测及接近感应控制芯片。采用 CMOS 工艺制造，内建稳压和去抖动电路，高可靠性，专为取代传统按键开关而设计。超低功耗与宽工作电压特性，广泛应用于 TWS 及 DC 应用上，实现产品智能化。

电气特点

- 工作电压：2.4V~5.5V
- 工作电流：快速模式下 3.5uA(@VDD=3.0V 且无负载)
- 在电源稳定后 0.5s 内完成上电初始化，此期间所有功能都被禁止
- 快速模式下响应时间约 45ms(@VDD=3.0V)
- 自动校准功能：刚上电的 8s 内约每 1s 刷新参考值，在此 8s 内有触摸按键或 8s 后仍无触摸按键，则重新校准周期切换为 4s
- 提供最长触摸按键输出时间约 16s（ ±25% @VDD=3.0V ）
- 提供外部脚位输出模式选择：直接输出或锁存输出，高电平输出有效或低电平输出有效
- 内建稳压电路提供稳定的电压给触摸检测电路使用
- 内建去抖动电路可有效防止外部噪声干扰而导致的误动作
- 可由外部电容调整灵敏度
- 可用于玻璃、陶瓷、塑料、亚克力等介质表面

典型应用电路

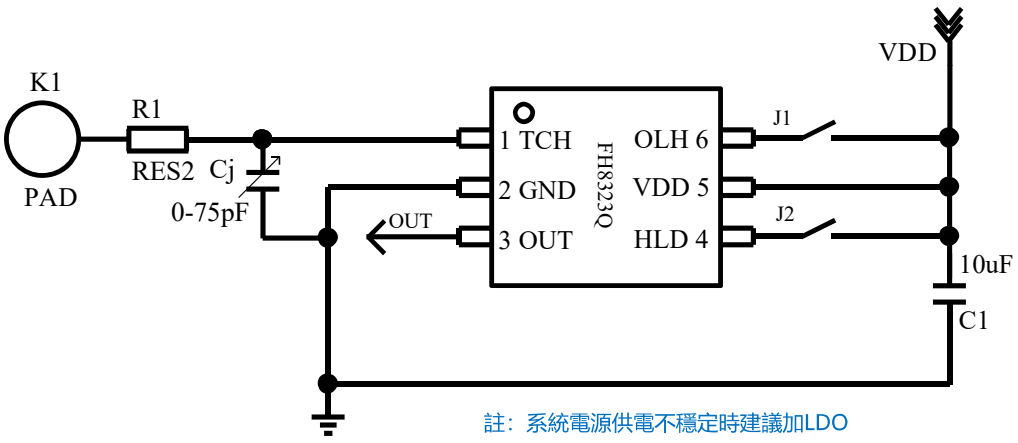


图 2. FH8323Q 典型应用电路图

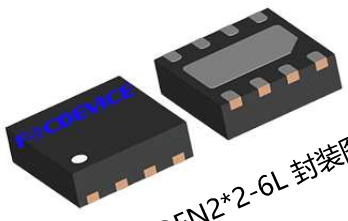
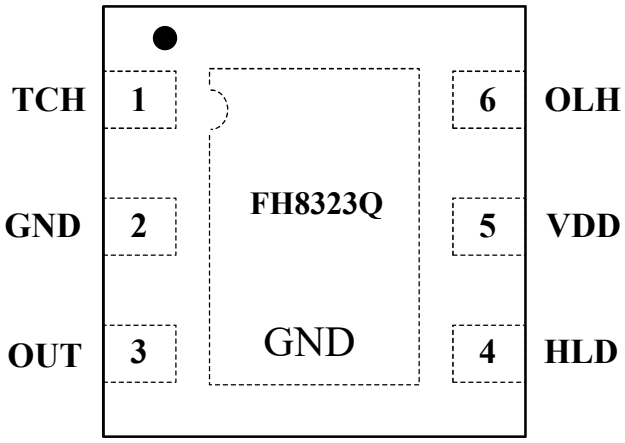


图 1. DFN2*2-6L 封装图

封装及脚位定义

(TOP VIEW)



DFN2*2-6L

脚位编号	脚位名称	脚位定义
1	TCH	触摸输入脚
2	GND	负电源供应脚，接地
3	OUT	CMOS 输出脚
4	HLD	输出模式选择脚 0（默认值）→直接输出；1→锁存输出
5	VDD	正电源供应脚
6	OLH	输出高/低电平有效选择脚 0（默认值）→高电平有效；1→低电平有效

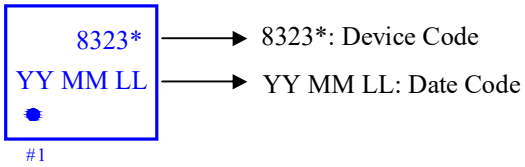
ORDERING INFORMATION

Part Number	Voltage Range	Features	Operating Temperature	Package Type	Top Mark	SPQ
FH8323QD6	2.4V ~ 5.5V	● Single Touch Key ● Built-in touch sensor ● VREG: 2.3V ● IDD: 1.5uA(Low Power) 3.5uA(Fast Power)	-20°C to 85°C	DFN2*2-6L	8323* YY MM LL	3000PCS/Reel

Note:

- **FH8323Q** 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.
- ForDevices reserves the right to amend and legally interpret the electrical parameters of this chip device. (http://www.fordevices.com)

Device Name: DFN2x2-6L



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.

Product Folder
Order Now
Technical Documents
Tools & Software
Support & Community

Note:

- The information described herein is subject to change without notice.
- ForDevices Inc. is not responsible for any problems caused by circuits or diagrams described herein whose related industrial properties, patents, or other rights belong to third parties. The application circuit examples explain typical applications of the products, and do not guarantee the success of any specific mass-production design.
- Use of the information described herein for other purposes and/or reproduction or copying without the express permission of ForDevices Inc. is strictly prohibited.
- The products described herein cannot be used as part of any device or equipment affecting the human body, such as exercise equipment, medical equipment, security systems, gas equipment, or any apparatus installed in airplanes and other vehicles, without prior written permission of ForDevices Inc.
- Although ForDevices Inc. exerts the greatest possible effort to ensure high quality and reliability, the failure or malfunction of semiconductor products may occur. The user of these products should therefore give thorough consideration to safety design, including redundancy, fire-prevention measures, and malfunction prevention, to prevent any accidents, fires, or community damage that may ensue.

▲ Update by Jul.2019