

## Synchronous Step-Up DC-DC Converter with PFM Control

### General Description

The FH4005 Series is a Synchronous step-up DC-DC Converter with PFM Control.

With the FH4005 Series, a step-up switching DC-DC converter can be configured by using

an external coil, capacitor. The built-in MOSFET is turned off by a protection circuit when the voltage at the LX pin exceeds the limit to prevent it from being damaged.

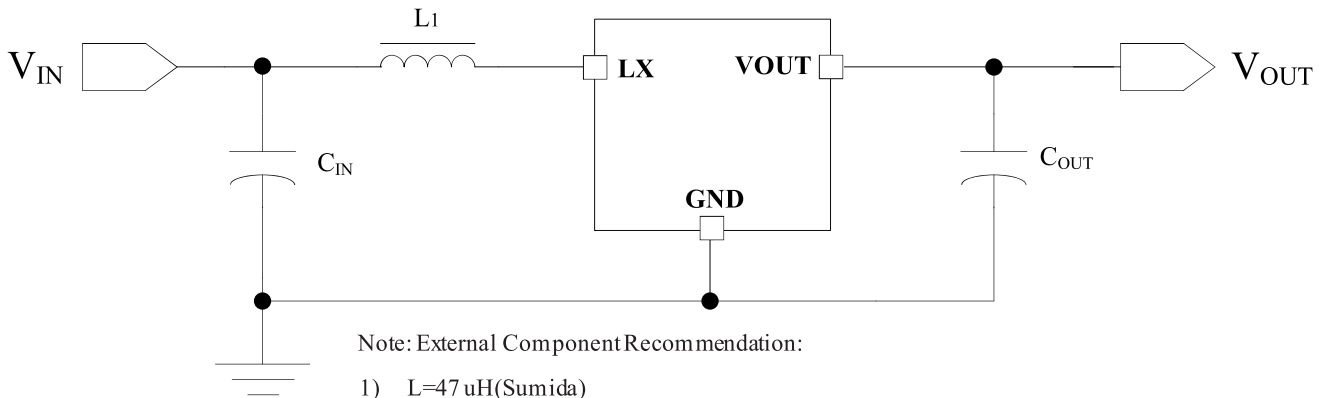
### Features

- External parts: Coil, capacitor
- Output voltage: Settable to between 2.1V to 5.5V in 0.1V steps
- Maximum Oscillation
- frequency: 300KHz
- Accuracy of  $\pm 2\%$
- High efficiency: 95%
- Package: SOT23

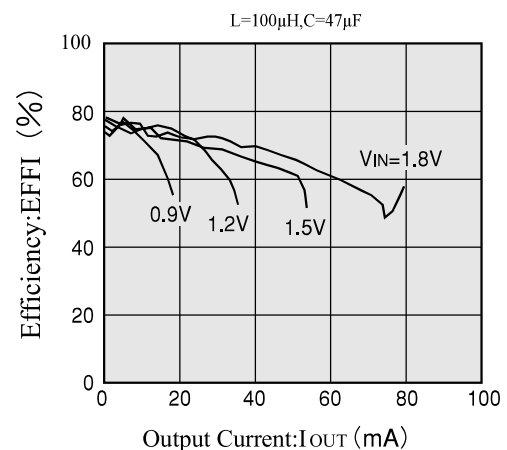
### Applications

- Digital cameras
- Electronic notebooks and PDAS
- Portable CD/MD players
- Cameras , video equipment
- Communications equipment
- Power supply for microcomputers

### Application Circuits



(FH4005 Physical Diagram)



## Pin Assignment

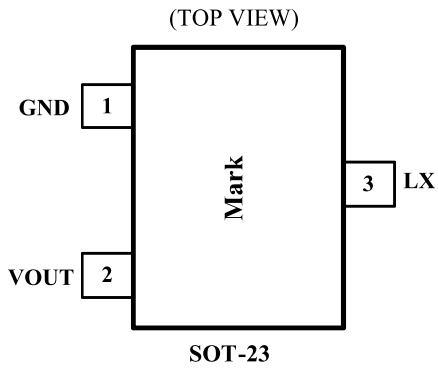
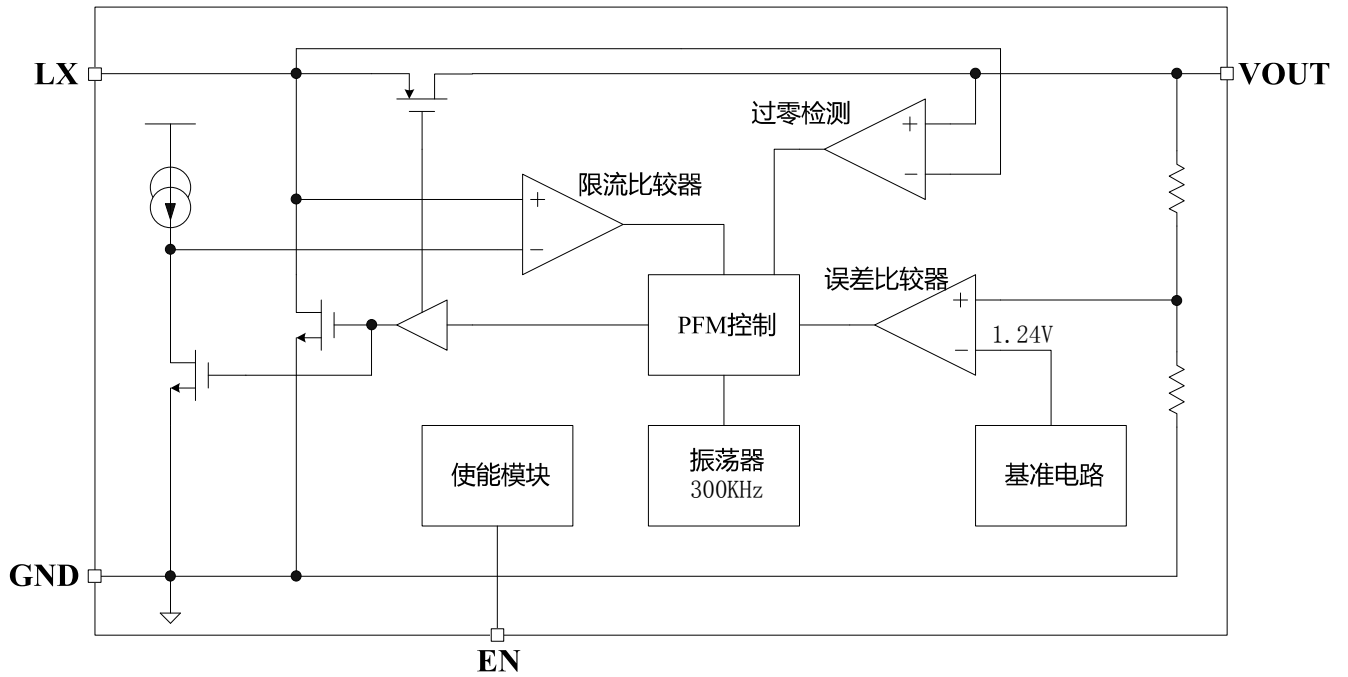


Table 1 FH4005 series (SOT23 PKG)

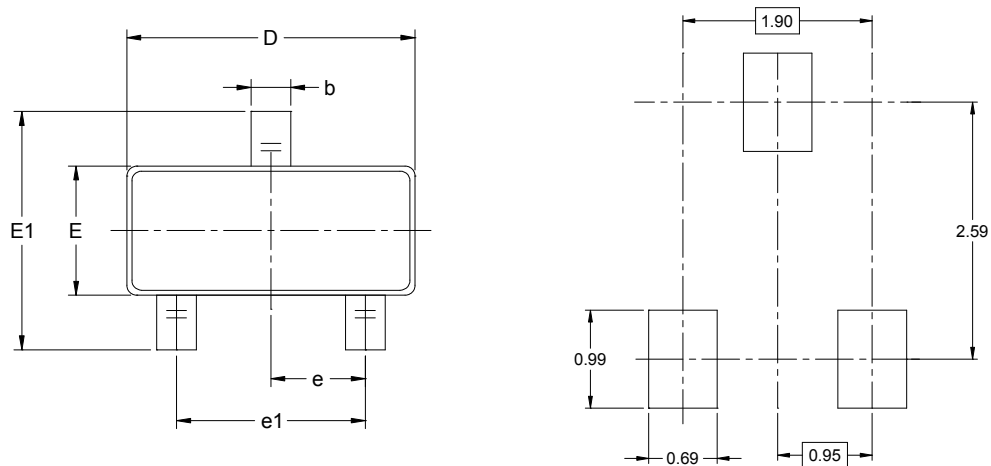
PIN NO.	PIN NAME	FUNCTION
1	GND	GND pin
2	VOUT	Output voltage pin
3	LX	External inductor connection pin

## Block Diagram

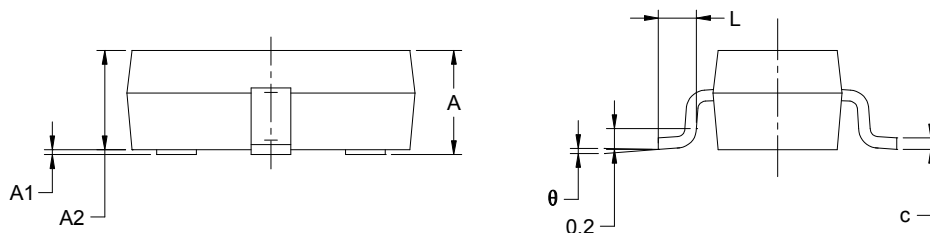


## Package Information

### 3-pin SOT23 Outline Dimensions



RECOMMENDED LAND PATTERN(Unit: mm)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950 BSC		0.037 BSC	
e1	1.900 BSC		0.075 BSC	
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

## Order Information

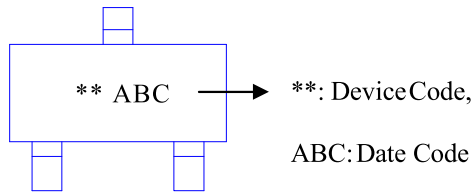
Part Number	Description	Output Voltage	Operating Temperature Range	Package Type	Top Mark	SPQ
FH4005A**M0	PFM Step-up Mode frequency: 300KHz RoHs/Pb Free	2.2V/2.5V/2.7V/2.8V/3.0V/3.3V/5.0V	-20 ~ +85°C	SOT-23	** **	3000PCS/Reel

Note:

- FH4005 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.



Device Name: SOT-23



### 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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### Note:

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