

PWM/PFM Automatic Controlled DC-DC Converters Backlight Driver

General Description

FH2121 series is a group of high efficiency synchronous-rectification type buck regulator using a constant frequency, current mode architecture. Automatic PWM/PFM mode operation increases efficiency and decreases output voltage ripple at light loads, further extending battery life. Switching frequency is internally set at 1.4MHz, allowing the use of small surface mount inductors and capacitors. 100% duty cycle provides low dropout operation.

Features

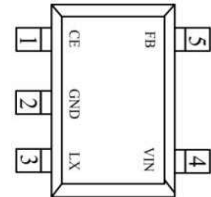
- Output Current : 800mA
- Shutdown Current : <math><1\mu\text{A}</math>
- Oscillation Frequency : 1.4MHz

Applications

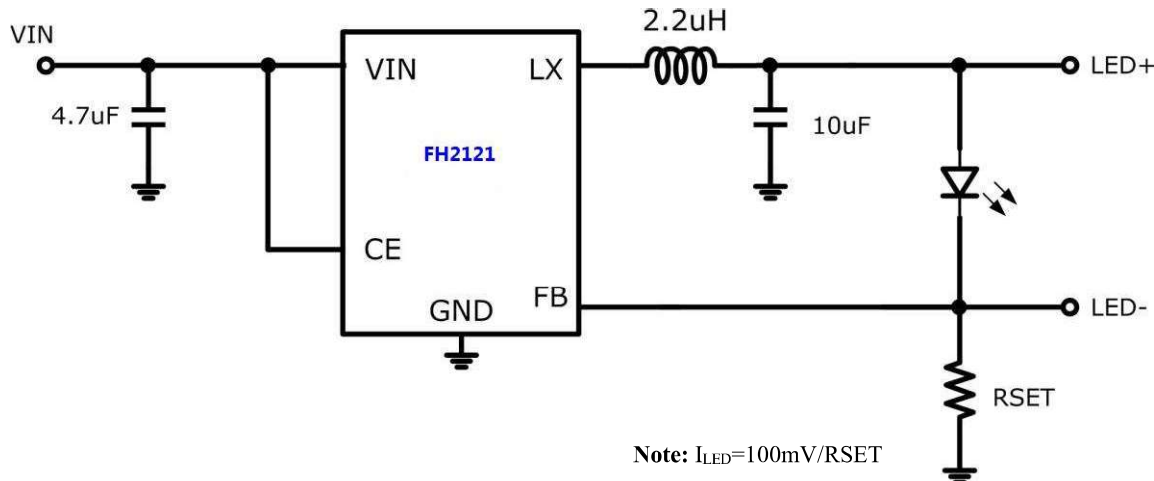
- LED driver

Package

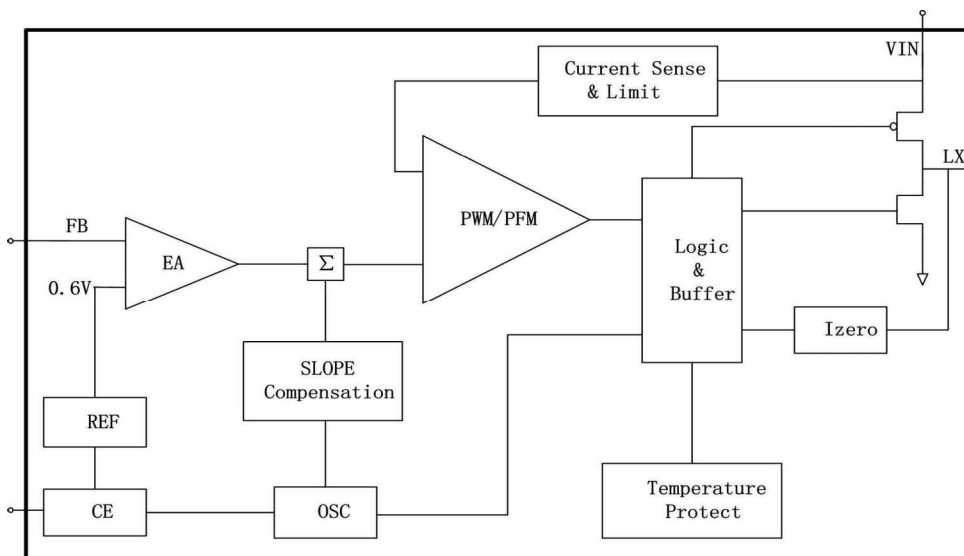
- SOT-23-5L



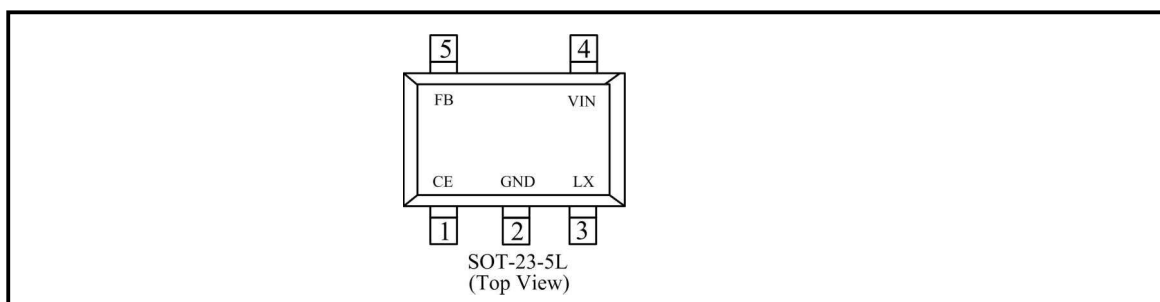
Typical Application Circuit



Function Block Diagram



■ Pin Configuration



■ Functional Pin Description

Pin Number	Pin Name	Function
1	CE	Chip Enable Pin
2	GND	Common Ground
3	LX	Switching Output
4	VIN	Power Input
5	FB	Feedback Voltage Pin

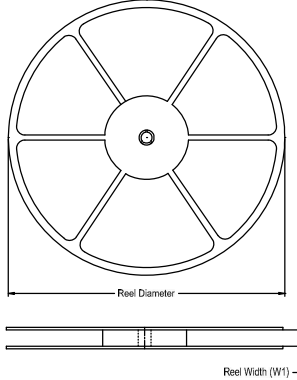
■ Absolute Maximum Ratings

Parameter		Symbol	Ratings	Units
Input Supply Voltage		VIN	-0.3~6.5	V
Output Voltage		VOUT	-0.3~6.5	
		VLX	-0.3~VIN + 0.3	
CE Voltage		VCE	-0.3~VIN + 0.3	V
Peak LX Current		ILX	1200	mA
Power Dissipation	SOT-23-5L	Pd	250	mW
Operating Temperature Range		Topr	-40~+85	°C
Storage Temperature Range		Tstg	-55~+125	

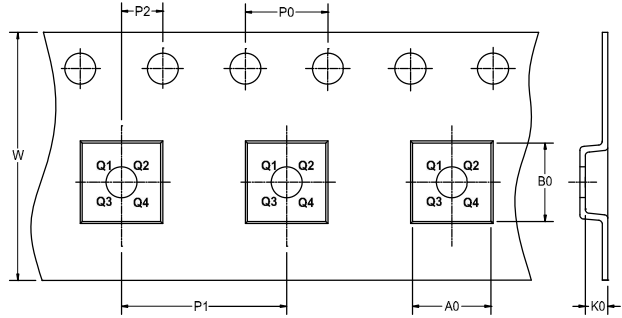
Note: Absolute Maximum Ratings are those values beyond which the life of a device may be impaired.

■ TAPE AND REEL INFORMATION

REEL DIMENSIONS



TAPE DIMENSIONS



NOTE: The picture is only for reference. Please make the object as the standard. **➔** DIRECTION OF FEED

KEY PARAMETER LIST OF TAPE AND REEL

Package Type	Reel Diameter	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P0 (mm)	P1 (mm)	P2 (mm)	W (mm)	Pin1 Quadrant
SOT-23-5	7"	9.5	3.2	3.2	1.4	4.0	4.0	2.0	8.0	Q3

■ Ordering Information

FH2121 ①②③

Designator	Symbol	Description
①	A	$V_{FB}=0.1V$
② ③	M5	Package Types: SOT-23-5L

For example:
 FH2121M5 is defined as FH2121, the feedback voltage is 0.1V,
 the oscillator frequency of 1.4MHz, Package SOT-23-5L, Reverse Feed.

■ Marking Rule

- SOT-23-5L

