

1.0 MHz, 3A Step-Up Regulator

General Description

FH4204B is an asynchronous PWM boost converter using a constant frequency peak current mode. An external Schottky diode is needed. At light load, FH4204B works in the light load mode. The supply current during the light mode is 100uA and less than 1uA in shutdown mode, together with the 130mΩ internal NMOS power transistor guarantees high efficiency in the whole output load current range. Up to 3A peak current, Let FH4204B can provide 1.5A output load current, which is suitable to use as MID and mobile power supply. The input voltage 2.5~5.5V. The operating frequency is internally set at 1MHz.

The device is available in the small profile SOT23-6L package.

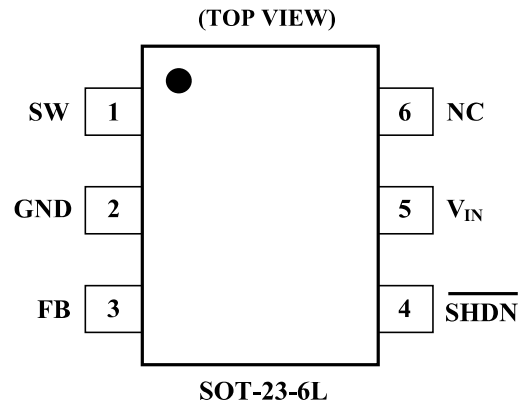
Applications

- WLED Drivers
- Networking cards powered from PCI or PCI-express slots
- MID and Mobile Power

Features

- High Efficiency: Up to 92%
- 1.0MHz Constant Switching Frequency
- Switch current up to 3A
- Low R_{dson}: 0.13Ω
- Accurate Reference:0.6V
- Tiny External Components
- <1μA Shutdown Current
- Space Saving 6-Pin SOT23 Package

Package



Typical Application Circuit

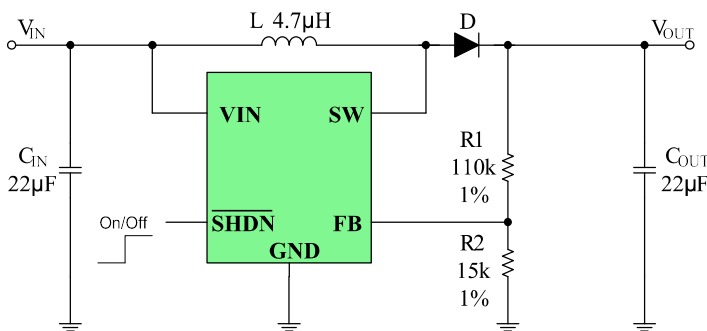


Figure 1. Basic Application Circuit with FH4204B

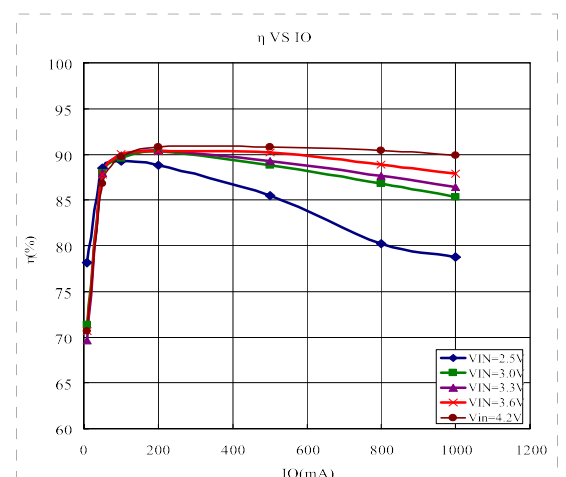
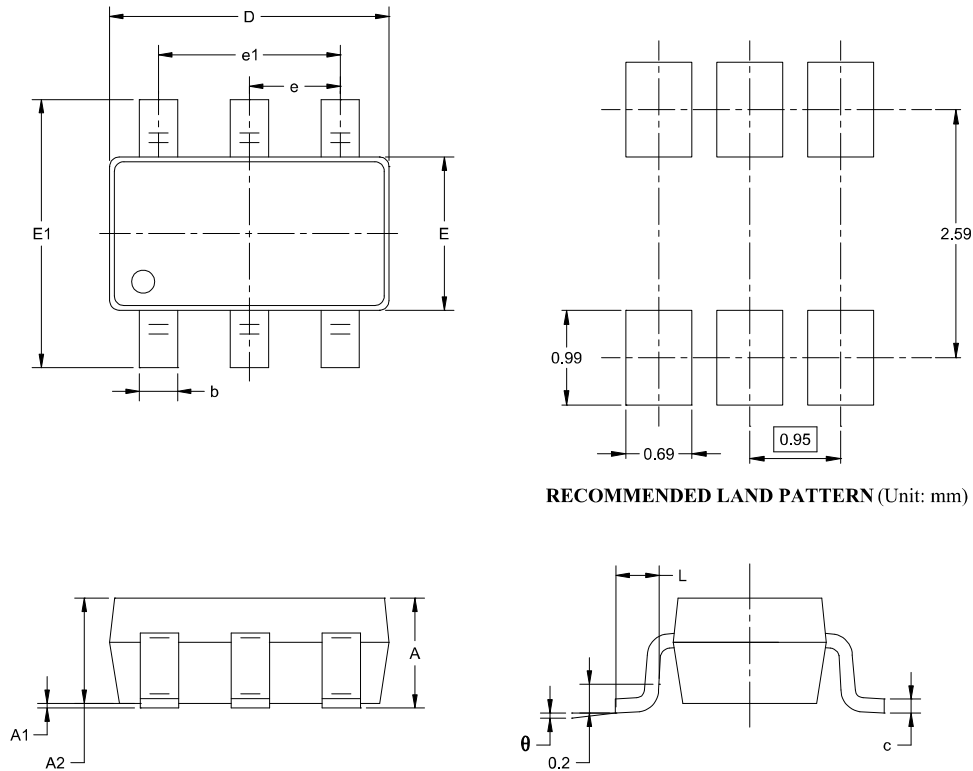


Figure 2. Typical Efficiency Curve

Package Information

SOT-23 -6L



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°

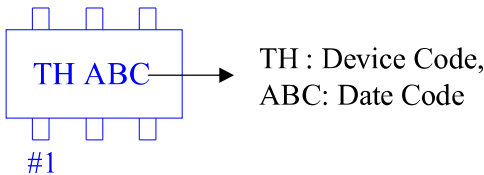
Ordering Information

Part Number	Operating Temperature	Package	Top Mark	MOQ	Description
FH4204BM6	-40°C ~ 85°C	SOT-23-6L	** **	3000PCS	Tape & Reel

- FH4204B 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.



Device Name: SOT-23-6L



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.



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