



Description

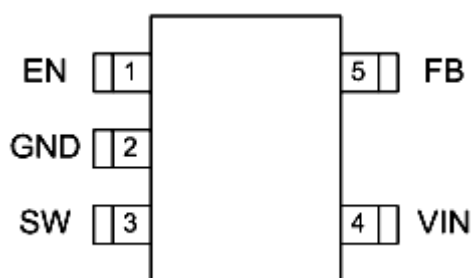
The SE3806 is a high efficiency monolithic synchronous buck regulator using a constant frequency, voltage mode architecture. The device is available in fixed output voltage of 1.8V and 1.5V and adjustable output voltage. Supply current during operation is only 20 μ A and drop to $\leq 1\mu$ A in shutdown. The 2.5V to 5.5V input voltage range makes the SE3806 ideally suited for single Li-Ion battery-powered applications. 100% duty cycle provides low dropout operation, extending battery life in portable systems.

Switching frequency is internally set at 1.25MHz, allowing the use of small surface mount inductors and capacitors.

The internal synchronous switch increases efficiency and eliminates the need for an external Schottky diode. The SE3806 is available in low profile SOT package.

Pin Configuration

5 Lead SOT-23



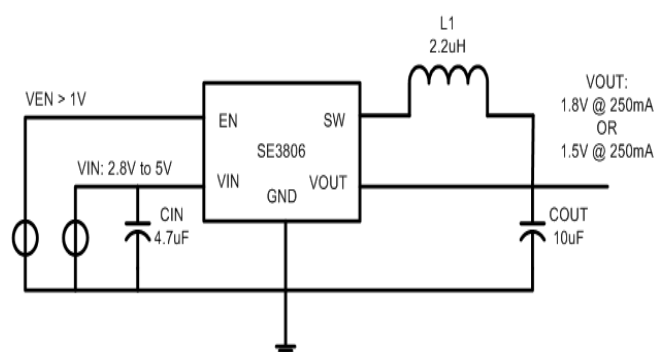
Features

- High Efficiency: Up to 96%
- Very Low Quiescent Current: Only 20 μ A During Operation
- 600mA Output Current
- 2.5V to 5V Input Voltage Range
- 1.25MHz Constant Frequency Operation
- No Schottky Diode Required
- Low Dropout Operation: 100% Duty Cycle
- Shutdown Mode draws $\leq 1\mu$ A Supply Current
- Excellent Line and Load Transient Response
- Overtemperature Protection
- Available in SOT Package

Application

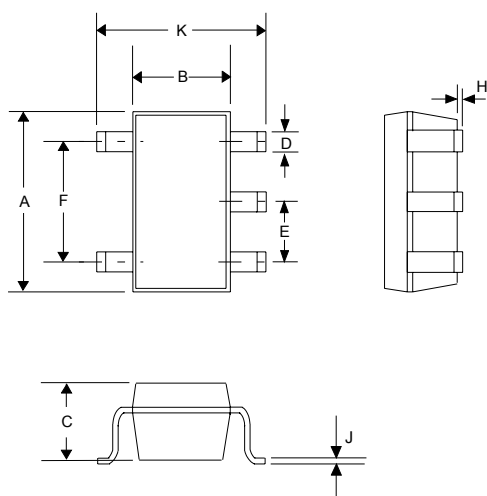
- Cellular Phone
- Personal Information Appliances
- Wireless and DSL Modems
- Digital Still Cameras
- MP3 Players
- Portable Instruments

Application Diagram





OUTLINE DRAWING SOT-23-5L



DIM ^N	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.110	0.120	2.80	3.05
B	0.059	0.070	1.50	1.75
C	0.036	0.051	0.90	1.30
D	0.014	0.020	0.35	0.50
E	-	0.037	-	0.95
F	-	0.075	-	1.90
H	-	0.006	-	0.15
J	0.0035	0.008	0.090	0.20
K	0.102	0.118	2.60	3.00

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