



## Description

The SE5120 series of fixed output low dropout linear regulators are designed for portable battery powered applications, which require low power consumption and low dropout voltage. Each device contains a bandgap voltage reference, an error amplifier, a PMOS power transistor, and resistors for setting output voltage, and current limit and temperature limit protection circuits.

The SE5120 has been designed to be used with low cost capacitors and requires a minimum output capacitor of 1.0 $\mu$ F. Standard voltage versions are 3.3, 3.0V, and adjustable output from 0.8V to 4.5V.

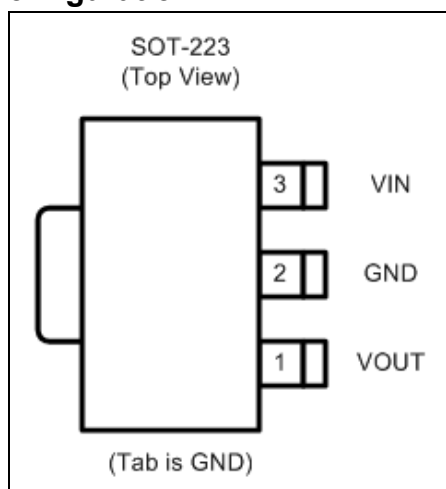
## Features

- Typical 135mV Dropout Voltage at 500mA.
- Excellent Line and Load Regulation.
- High Accuracy Output Voltage of 2%.
- Ultra-Low Ground Current at 62 $\mu$ A (Typ.)
- Thermal and Over-Current Protection.
- Standard SOT-223 Package.

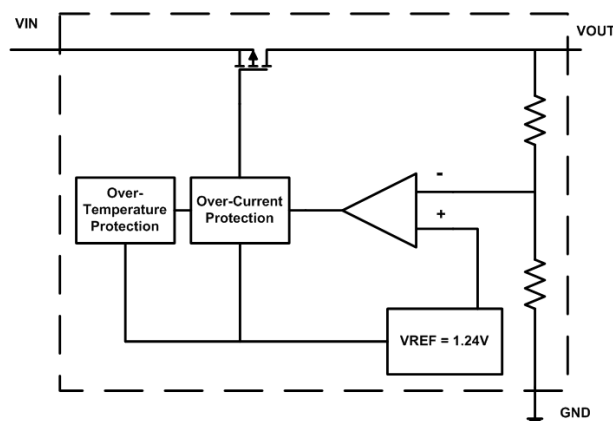
## Application

- USB removable devices
- MPEG4 HDD devices
- Wireless LAN's
- Hand-Held Instrumentation.
- Portable DVD players
- Digital camera

## Pin Configuration

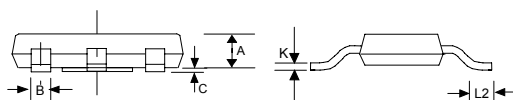
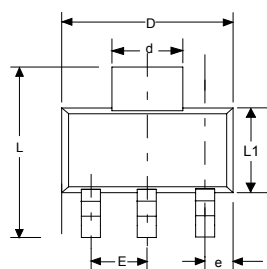


## Block Diagram





## OUTLINE DRAWING SOT-223



| DIM <sup>N</sup> | DIMENSIONS |       |       |       |
|------------------|------------|-------|-------|-------|
|                  | INCHES     |       | MM    |       |
|                  | MIN        | MAX   | MIN   | MAX   |
| A                | —          | 0.071 | —     | 1.80  |
| B                | 0.025      | 0.033 | 0.640 | 0.840 |
| C                | 0.012      | —     | 0.31  | —     |
| D                | 0.248      | 0.264 | 6.30  | 6.71  |
| d                | 0.115      | 0.124 | 2.95  | 3.15  |
| E                | —          | 0.090 | —     | 2.29  |
| e                | 0.033      | 0.041 | 0.840 | 1.04  |
| L                | 0.264      | 0.287 | 6.71  | 7.29  |
| L1               | 0.130      | 0.148 | 3.30  | 3.71  |
| L2               | 0.012      | —     | 0.310 | —     |
| K                | 0.010      | 0.014 | 0.250 | 0.360 |

## Contact Information

### Seaward Electronics Incorporated – China

Room 1605, Building 1, International Pioneering Park, #1 Shangdi Xinxu Rd.

Haidian District, Beijing 100085, China

Tel: 86-10-8289-5700/01/05

Fax: 86-10-8289-5706

Email: sales@seawardinc.com.cn

### Seaward Electronics Corporation – Taiwan

2F, #181, Sec. 3, Min Quan East Rd.

Taipei, Taiwan R.O.C

Tel: 886-2-2712-0307

Fax: 886-2-2712-0191

Email: sales@seawardinc.com.tw

### Seaward Electronics Incorporated – North America

49 Showers Dr. J126

Mountain View, CA 94040, USA

Tel: 1-408-821-6600

Last Updated - 9/5/2005