

General Description

The TCS9303B is a highly integrated boost converter designed for applications requiring high voltage and high efficiency solution. The TCS9303B integrates a 20V power switch, it can output up to 18V from input of a Li+ battery or two cell alkaline batteries in series.

The TCS9303B operates with a switching frequency at 800KHz. This allows the use of small external components. TCS9303B has typical 4A switch current limit. It has 1.5mS built-in soft start time to minimize the inrush current. The TCS9303B also implements output short circuit protection, output over-voltage protection and thermal shutdown.

The TCS9303B is available in a small SOT23-6 package.

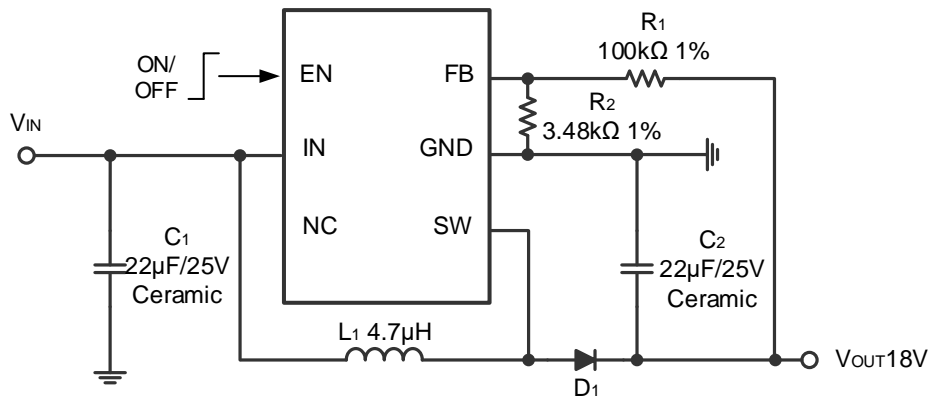
Features

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|-----------------------------------------|--------------------------------------------|
| 2.3V to 5.5V Input Voltage | Up to 85% Efficiency@3.6V Input 12V Output |
| Up to 18V Output Voltage | Output Short Circuit Protection |
| Integrated 60mΩ Power MOSFET | Output Over-Voltage Protection |
| 800KHz Fixed Switching Frequency | Thermal Shutdown Protection |
| Internal 4A Switch Current Limit | Output Adjustable from 0.6V |
| Power Save Operation Mode at Light Load | -40°C to +85°C Temperature Range |
| Internal 1.5mS Soft Start Time | Available in SOT23-6 Package |

Applications

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|---------------------|----------------------------|
| Wearable Devices | Battery-Powered Equipment |
| Sensor Power Supply | Portable Medical Equipment |

Typical Application Circuit



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