

Description

The TCS9302B is a highly efficient non-synchronous boost converter incorporating an integrated N-MOSFET, Constant off time control architecture. The TCS9302B integrated a very low $R_{DS(ON)}$ of N-MOSFET and feedback voltage to reduce power loss and achieve high efficiency.

TCS9302B has typical 1MHz switching frequency and integrated compensation network significantly minimize the number of required external components. The TCS9302B requires a minimal number of readily available, external components and is available in a small SOT23-6 package.

Features

- Wide 2.4V to 24V Operating Input Range
- Built-in 3.5A Switch Current Limit
- Cycle-by-cycle Current limit

- Constant Off-time Control
- 1MHz Switching Frequency
- Adjustable Overcurrent Limit
- DCM for High Efficiency in Light Load Condition
- Integrated internal Soft-Start
- 80mΩ Low $R_{DS(ON)}$ Internal MOSFET
- Output Adjustable from 0.6V
- Low EMI Signature
- Thermal Shutdown
- Available in a 6-Pin SOT23-6 Package

Application

- Automotive Entertainment
- Wireless and DSL Modems
- Computer Entertainment
- IoT Applications
- Digital Still and Video Cameras
- Portable Instrument

Typical Application

