Features

- Wide 2.5V to 6.0V Operating Input Range
- 2.0A Continuous Output Current
- 1.2MHz Switching Frequency
- Short Protection with Hiccup-Mode
- Built-in Over Current Limit
- 10% To 100% load Transients, Output Change Less than 5%
- DCM for High Efficiency in Light Load
- Integrated internal Soft-Start
- 100/60mΩ Low RDS(ON) Internal MOSFETs
- Output Adjustable from 0.6V
- Low EMI Signature
- 100% Duty cycle
- Built-in 35Ω Discharge Resistor
- Thermal Shutdown
- COT Mode
- MSL3 Package Level

Applications

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

General Description

The TCS4205D is a high-efficiency monolithic synchronous buck regulator using a constant frequency, COT mode architecture. The device is available in an adjustable version. Supply current with no load is 35uA and drops to <1uA in shutdown. The 2.5V to 6.0V input voltage range makes the TCS4205D ideally suited for single Li-Ion battery powered applications. 100% duty cycle provides low dropout operation, extending battery life in portable systems. DCM/CCM mode operation provides very low output ripple voltage for noise sensitive applications. Switching frequency is internally set at 1.2MHz, allowing the use of small surface mount inductors and capacitors. Low output voltages are easily supported with the 0.6V feedback reference voltage.

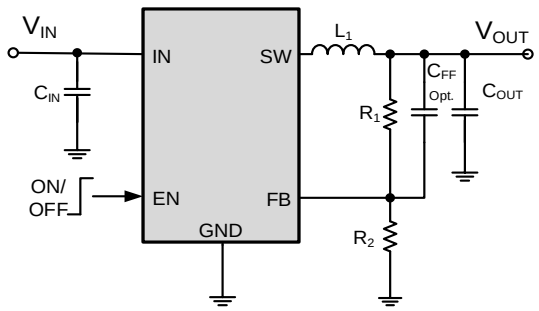
The TCS4205D requires a minimal number of readily available, external components and is available in a small package.

Oder Information

TCS4205D□—— Package&Mode:

: SOT23-5 DCM
A: SOT563 DCM
B: DFN1.6*1.6 DCM
C: SOT23-5 CCM
D: DFN1.6*1.6 CCM

Simplified Application Circuit



Basic Application Circuit

Mark Information

XX: Device Code
Y : Inside Code
LL: Lot Code