

General Description

The TCS4863 is a current mode monolithic buck switching regulator. Operating with an input range of 4.5V~60V, it supplies 3A of continuous output current over a wide input-supply range with excellent load and line regulation. At light loads, the regulator operates in low frequency to maintain high efficiency and low output ripple. Current mode control provides tight load transient response. TCS4863 achieves low EMI signature with well-controlled switching edges. Fault condition protection includes programmable output-voltage Protection, detectable output short protection, thermal shutdown and input under voltage lockout. The TCS4863 is available in ESOP8A, ESOP8B and ESOP8C packages, which provide a compact solution with minimal external components.

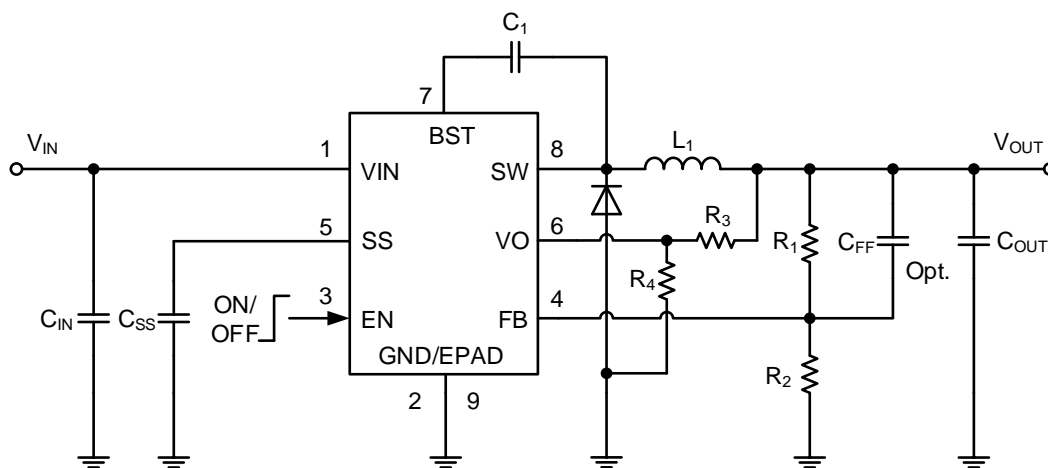
Features

- Wide 4.5V to 60V Operating Input Range
- 3A Continuous Output Current
- 500KHZ Switching Frequency
- Detectable Output Short Protection
- Programmable Output Over-Voltage Protection
- PSM Mode for High Efficiency in Light Load
- Low EMI Signature
- 150mΩ Internal Power MOSFETs
- Output Adjustable from 0.8V
- Internal Soft-Start
- Thermal Shutdown
- Available in ESOP8A, ESOP8B and ESOP8C Packages
- 40°C to +85°C Temperature Range

Applications

- Automotive GPS
- Automotive Entertainment
- Power Supply for Linear Chargers
- Network Equipment

Typical Application Circuit



Typical TCS4863A Application Circuit