

600kHz, 18V, 3A Synchronous Step-Down Converter

FEATURES

- 600kHz Frequency Operation
- 3.0A Output Current
- No Schottky Diode Required
- 3.5V to 18V Input Voltage Range
- 0.8V Reference
- Slope Compensated Current Mode Control for Excellent Line and Load Transient Response
- Integrated internal compensation
- Stable with Low ESR Ceramic Output Capacitors
- Over Current Protection with Hiccup-Mode
- Input overvoltage protection (OVP)
- Thermal Shutdown
- Inrush Current Limit and Soft Start
- Available in SOT23-6 Package

GENERAL DESCRIPTION

The STI3474 is a fully integrated, high efficiency 3.0A synchronous rectified step-down converter. The STI3474 operates at high efficiency over a wide output current load range.

This device offers two operation modes, PWM control and PFM Mode switching control, which allows a high efficiency over the wider range of the load.

The STI3474 requires a minimum number of readily available standard external components and is available in a 6-pin SOT23-6 ROHS compliant package.

APPLICATIONS

- Vehicle USB Power Chargers
- Distributed Power Systems
- Digital Set Top Boxes
- Flat Panel Television and Monitors
- Notebook computer
- Wireless and DSL Modems

TYPICAL APPLICATION

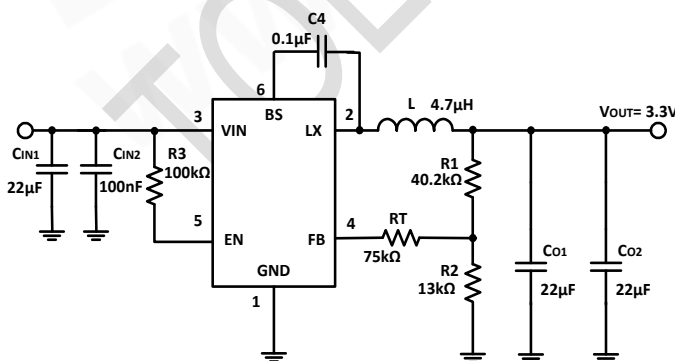


Figure 1. Basic Application Circuit
Note: if $R_T=0\Omega$, R_1 should be $56k\Omega\sim 200k\Omega$

Efficiency

$V_{OUT}=3.3V$, $I_{OUT}=0.01A$ to $2.5A$, $L_{OUT}=4.7\mu H$, $T_A=25^\circ C$

