

# 1MHz, 18V, 2.0A FPWM Synchronous Step-Down Converter

In SOT563

## FEATURES

- High Efficiency: Up to 93%(@3.3V)
- Force PWM 1MHz Operation
- Up to 2.0A Output Current
- Low  $R_{DS(ON)}$  for internal switches:  
90m $\Omega$ /45m $\Omega$ (top/bottom)
- 4.5V to 18V Input Voltage Range
- 0.805V Reference
- Current mode COT control to achieve fast transient responses
- Integrated internal compensation
- Stable with Low ESR Ceramic Output Capacitors
- Over Current Protection with Hiccup Mode
- Thermal Shutdown
- Inrush Current Limit and Soft Start
- Available in SOT563 Package

## GENERAL DESCRIPTION

The STI3452HF is a high efficiency 1MHz current mode constant on-time (CM-COT) control mode synchronous step-down DC-DC converter capable of delivering 2A current with force PWM operation. STI3452HF integrates main switch and synchronous switch with very low  $R_{DS(ON)}$  to minimize the conduction loss. Low output voltage ripple and small external inductor and capacitor size are achieved with 1MHz switching frequency. It adopts the CM-COT architecture to achieve fast transient responses for high voltage step down applications.

The STI3452HF requires a minimum number of readily available standard external components and is available in a space saving 6-pin SOT563 ROHS compliant package.

## APPLICATIONS

- Digital Set Top Boxes
- Flat Panel Television and Monitors
- Notebook computer
- Wireless and DSL Modems

## TYPICAL APPILCATION

