# 2A Step-down DC/DC

#### **Features**

- 2A Output Current
- 0.18Ω Internal Power MOSFET Switch
- Stable with Low ESR Output Ceramic Capacitors
- Up to 95% Efficiency
- 25µA Shutdown Mode
- Fixed 380kHz Frequency
- Thermal Shutdown
- Cycle-by-Cycle Over Current Protection
- Wide 4.75V to 20V Operating Input Range
- Output Adjustable from 1.22V to 12V
- Available in SOP-8 Package

## **Applications**

- **PC Monitors**
- **DSL Modems**
- Distributed Power Systems
- Pre-Regulator for Linear Regulators

#### **General Description**

The G5654 is a monolithic step-down switch mode regulator with a built in internal power MOSFET. It achieves 2A continuous output current over a wide input supply range with excellent load and line regulation.

Current mode operation provides fast transient response and eases loop stabilization.

Fault condition protection includes cycle-by-cycle current limiting, output short circuit protection and thermal shutdown. In shutdown mode the regulator draws 25µA of supply current. Programmable soft-start overwrites the internal soft-start for various requirement of output power up ramp and minimizes the inrush supply current at initial startup.

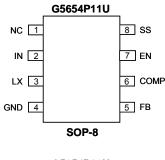
The G5654 requires a minimum number of readily available standard external components. It is available in a SOP-8 package.

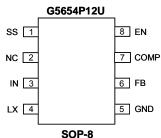
## **Ordering Information**

| ORDER<br>NUMBER | MARKING | TEMP.<br>RANGE | PACKAGE<br>(Green) |
|-----------------|---------|----------------|--------------------|
| G5654P11U       | G5654   | -40°C to +85°C | SOP-8              |
| G5654P12U       | G5654A  | -40°C to +85°C | SOP-8              |

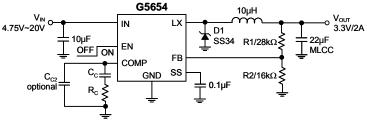
Note: P1: SOP-8 1: Bonding Code U: Tape & Reel

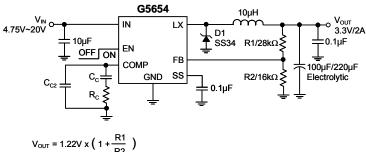
#### **Pin Configuration**





# **Typical Application Circuit**





Ver: 0.5 Aug 03, 2009

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