

3A Step-down DC/DC

Features

- 3A Output Current
- 0.15Ω 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 (FD) Package

Applications

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

General Description

The G5656 is a monolithic step-down switch mode regulator with a built in internal power MOSFET. It achieves 3A 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.

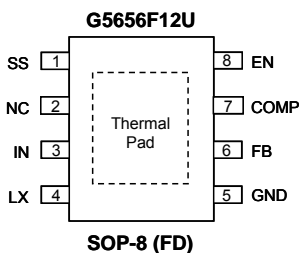
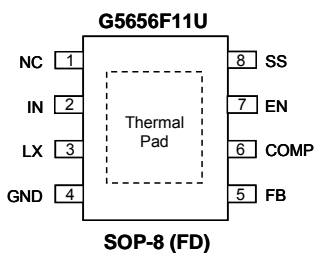
The G5656 requires a minimum number of readily available standard external components. It is available in a SOP-8 (FD) package.

Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G5656F11U	G5656	-40°C to +85°C	SOP-8 (FD)
G5656F12U	G5656A	-40°C to +85°C	SOP-8 (FD)

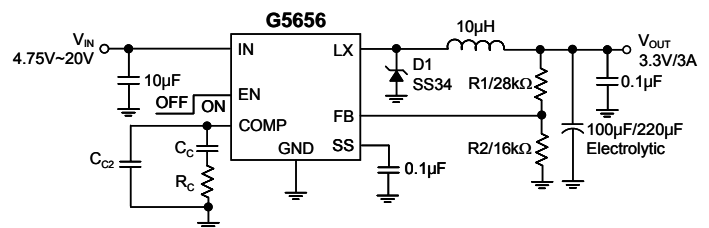
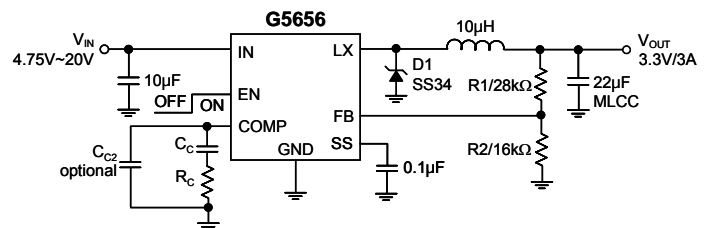
Note: F1: SOP-8 (FD)
 1 & 2: Bonding Code
 U : Tape & Reel

Pin Configuration



Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

Typical Application Circuit



$$V_{OUT} = 1.22V \times \left(1 + \frac{R1}{R2}\right)$$