

GS5584

1.25MHz 4A Step-Down DC-DC Converter

Product Description

GS5584 is a high efficiency step-down DC/DC converter operated with the current mode and the constant frequency. The internal switch and synchronous rectifier are integrated for high efficiency. GS5584 can supply 4A of load current from 2.7V to 5.5V supply voltage.

The switching frequency is set at 1.25MHz, allowing the use of small surface mount inductors and capacitors. It can run 100% duty cycle for low dropout application. GS5584 is available in a DFN3X3-10 package.

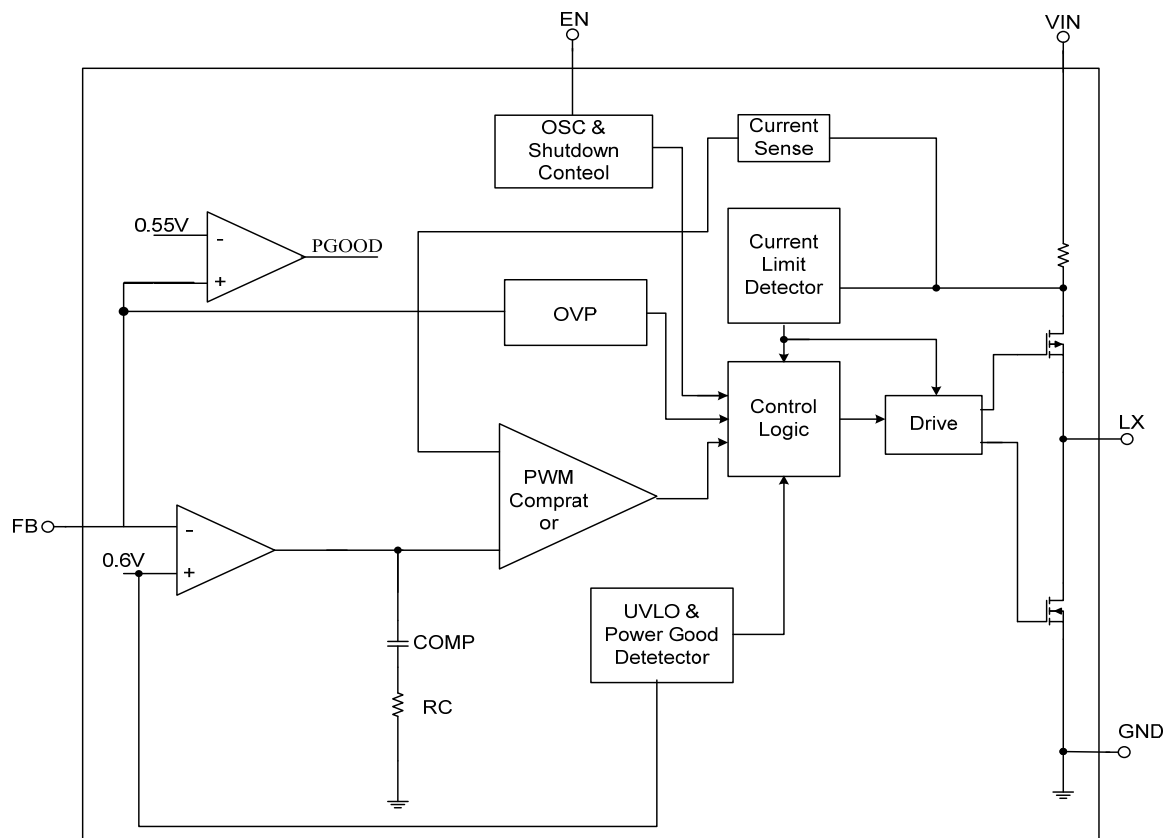
Features

- 2.7V to 5.5V Input Voltage Range
- High Efficiency: Up to 95%
- 1.25MHz Constant Switching Frequency
- 4A Available Load Current
- 100% Duty Cycle in Dropout
- Current Mode Control
- Short Circuit Protection
- Thermal Fault Protection
- Compact package: DFN3X3-10

Applications

- Set Top Box
- LCD TV
- Access-Point Router
- Mini-notebook PC
- Tablet PC

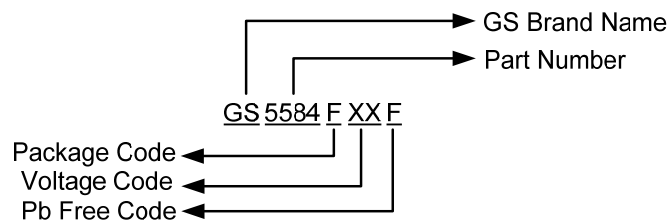
Functional Block Diagram



Packages & Pin Assignments

GS5584FAF DFN3x3-10L(Top View)		
Symbol	Pin(DFN3x3)	Function
LX	2,3	Switch Output. Connect this pin to the switching end of the inductor..
PG	4	Power Good Indicator. Pull-High Resistor is Needed.
EN	5	On/Off Control Input. Pull EN above 1.5V to turn the device on.
FB	6	Feedback Input. Connect FB to the center point of the external resistor divider. The feedback threshold voltage is 0.6V.
NC	1,7	No connected.
SVIN	8	Signal Input. Drive 2.7V to 5.5V voltage to this pin to power on this chip. Connecting a 1uF(min) ceramic bypass capacitor between SVIN and GND to eliminate noise
GND	11	Ground. This pin is the voltage reference for the regulated output voltage. For this reason care must be taken in its layout.
PVIN	9,10	Power Supply Input. Drive 2.7V to 5.5V voltage to this pin to power on this chip. Connecting a 10uF(min) ceramic bypass capacitor between PVIN and GND to eliminate noise

Ordering Information



Part Number	Temperature Range	Output Voltage	Package
GS5584FAF	-40°C to 85°C	ADJ	DFN3x3-10L

*For other output voltages, please contact factory