# **5A Synchronous Step-Down DC/DC**

#### **Features**

- 5A Output Current<sup>\*</sup>
- 75mΩ Internal Power MOSFET Switch
- Stable with Low ESR Output Ceramic Capacitors or POSCAPs
- Less Than 1µA Shutdown Current
- 1MHz Switching Frequency
- Power Good Opened Drain Output
- Thermal Shutdown
- Cycle-by-Cycle Over Current Protection
- Output Adjustable from 0.6V to V<sub>IN</sub>
- Available in TDFN3X3-10 Package

#### **Applications**

- NB
- Distributed Power Systems
- Pre-Regulator for Linear Regulators

#### **General Description**

The G5675 is a monolithic step-down switch mode regulator with a built in internal power MOSFET. It achieves a continuous output current at 1MHz switching frequency with excellent load and line regulation. Current mode operation provides fast transient response and eases of loop stabilization. Power good function delivers power supply ready signal to the load.

Fault condition protection includes cycle-by-cycle current limiting, output short circuit protection and thermal shutdown. In shutdown mode the regulator ground current is controlled less than  $1\mu A$ . An Internal soft-start minimizes the inrush supply current at initial startup.

The G5675 requires a minimum number of readily available standard external components. It is available in TDFN3X3-10 package.

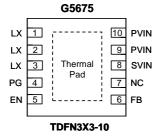
#### **Ordering Information**

ORDER	MARKING	TEMP.	PACKAGE
NUMBER		RANGE	(Green)
G5675RE1U	5675	-40°C to +85°C	TDFN3X3-10

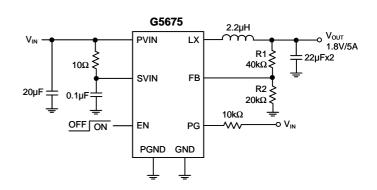
Note: RE: TDFN3X3-10 1 : Bonding Code U : Tape & Reel

### **Pin Configuration**

## **Typical Application Circuit**



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



<sup>\*</sup>The output voltage should be less then 1.8V. If the Vout setting is larger then 1.8V, the output current will be less then 5A because of thermal protection.