1.2MHz, 1.2A Synchronous Step-Down Regulator

Features

- **High Efficiency: Up to 95%**
- **Low Quiescent Current: Only 50µA During Operation**
- **Internal Soft Start Function**
- **1.2A Output Current**
- **2.5V to 6V Input Voltage Range**
- **1.2MHz Switching Frequency**
- **No Schottky Diode Required**
- **100% Duty Cycle in Dropout Operation**
- **0.6V Reference Allows Low Output Voltages**
- **<1µA Shutdown Current**
- **Current Mode Operation for Excellent Line and Load Transient Response**
- **Over Temperature Protected**
- **RoHS Compliant**

General Description

The G5698 is a high efficiency monolithic synchronous buck regulator using a constant frequency, current mode architecture. Supply current during operation is only 50µA and drops to <1µA in shutdown. The 2.5V to 6V input voltage range makes the G5698 ideally suited for single Li-Ion battery-powered applications. 100% duty cycle provides low dropout operation, extending battery run time in portable systems. Switching frequency is internally set at 1.2MHz, allowing the use of small surface mount inductors and capacitors. The internal synchronous switch increase efficiency and eliminates the need for an external Schottky diode. Built-in soft start function eliminates in-rush current that could damage the system.

Applications

- **Cellular Telephones**
- **Personal Information Appliances**
- **Microprocessors and DSP Core Supplies**
- **Wireless and DSL Modems**
- **Digital Still and Video Cameras**
- **MP3 Players**
- **Portable Instruments**

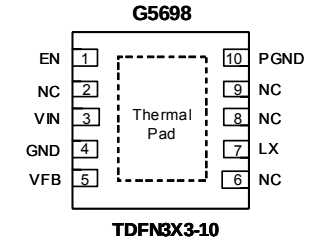
Ordering Information

ORDER NUMBER	MARKING	OUTPUT VOLTAGE	TEMP. RANGE	PACKAGE (Green)
G5698ADJRE1U	5698A	Adjustable	-40°C~ +85°C	TDFN3X3-10

For other output voltage, please contact us at sales@gmt.com.tw

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

Pin Configuration



Note: Recommend connecting the Thermal Pad to the GND or let it keep floating.

Typical Application Circuit

