

## 1MHz, 3A Synchronous Step-Down Regulator

### Features

- High Efficiency: Up to 95%
- Low Quiescent Current: Only 50µA During Operation
- Internal Soft Start Function
- Output Current  
G5719BTB1U: 2A Continuous, 3A Peak  
G5719BRC1U: 3A Continuous
- 2.5V to 6V Input Voltage Range
- 1MHz 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
- Power Good
- Output Short Circuit Latch-off Protection
- Output Overvoltage Latch-off Protection

### General Description

The G5719B 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 G5719B 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 1MHz, 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. Output latch-off operation protects the step-down regulator from damage under short circuit and overvoltage conditions.

### 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

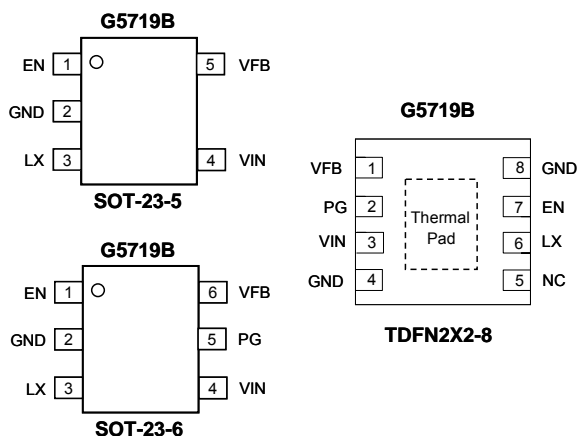
ORDER NUMBER	MARKING	OUTPUT VOLTAGE	TEMP. RANGE	PACKAGE (Green)
G5719BT11U	519Bx	Adjustable	-40°C to +85°C	SOT-23-5
G5719BTB1U	519Bx	Adjustable	-40°C to +85°C	SOT-23-6
G5719BRC1U	519B	Adjustable	-40°C to +85°C	TDFN2X2-8

Note: T1: SOT-23-5 TB: SOT-23-6 RC: TDFN2X2-8

1: Bonding Code

U: Tape & Reel

### Pin Configuration



### Typical Application Circuit

