

1MHz 1A Synchronous Step-Down Regulator

Features

- High Efficiency: Up to 93%
- Low Quiescent Current: Only 50µA During Operation
- Internal Soft Start Function
- 1A Output Current
- 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

Applications

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

General Description

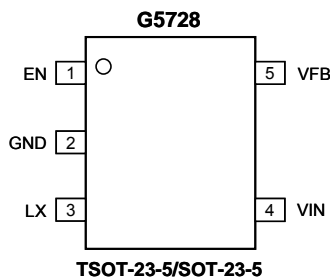
The G5728 is a high efficiency monolithic synchronous buck regulator using a constant frequency, current mode architecture. Supply current during operation is only 50µA and drops to <1µA in shutdown. The 2.5V to 6V input voltage range makes the G5728 ideally suited for single Li-Ion battery-powered applications. 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.

Ordering Information

ORDER NUMBER	MARKING	OUTPUT VOLTAGE	TEMP. RANGE	PACKAGE (Green)
G5728TO1U	5728x	Adjustable	-40°C~ +85°C	TSOT-23-5
G5728T11U	5728x	Adjustable	-40°C~ +85°C	SOT-23-5

Note: TO:TSOT-23-5 T1:SOT-23-5
 1: Bonding Code
 U: Tape & Reel

Pin Configuration



Typical Application Circuit

