

1MHz, All-Ceramic, 3A PWM Buck DC/DC Converter

Features

- Ceramic Input and Output Capacitors
- Efficiency Up to 94%
- Operate from 2.5V to 5.5V supply
- Adjustable Output from 0.8V to V_{IN}
- Internal Soft-Start
- Short-Circuit and Thermal-Overload Protection
- RoHS Compliant

Applications

- ASIC/DSP/μP/FPGA Core and I/O Voltages
- Set-Top Boxes
- Cellular Base Stations
- Networking and Telecommunications

General Description

The G5693 high-efficiency, DC/DC buck converter delivers up to 3A of output current. The device operates from an input voltage of 2.5V to 5.5V and provides an output voltage from 0.8V to V_{IN} , making the G5693 ideal for on-board post-regulation applications. The G5693 operate at a fixed frequency of 1MHz with an efficiency of up to 94%. The high operating frequency minimizes the size of external components. Internal soft-start control circuitry reduces inrush current. Short-circuit and thermal-overload protections improve design reliability.

The G5693 are available in a space-saving 8-pin SO package.

Ordering Information

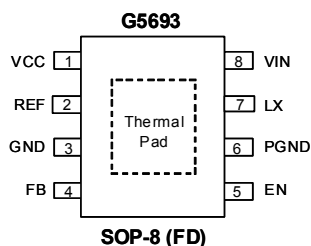
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Pb free)
G5693F11U	G5693	-40°C to +85°C	SOP-8 (FD)

Note: F1:SOP-8 (FD)

1: Bonding Code

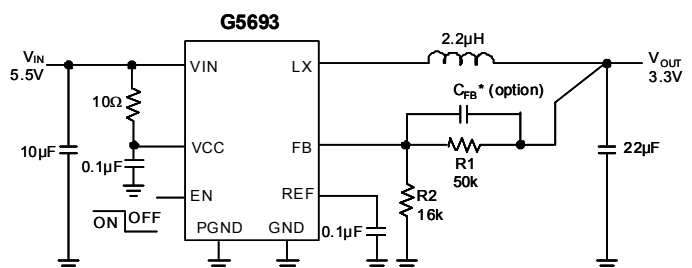
U: Tape & Reel

Pin Configuration



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

Typical Application Circuit



$$V_{OUT} = 0.8V \cdot \left(1 + \frac{R1}{R2}\right)$$