

# 500kHz 2A/3A Synchronous Step-down DC/DC

## Features

- 2A/3A Output Current
- 0.1Ω Internal Power MOSFET Switch
- Stable with Low ESR Output Ceramic Capacitors
- Up to 95% Efficiency
- 32μA Shutdown Mode
- Fixed 500kHz Frequency
- Thermal Shutdown
- Cycle-by-Cycle Over Current Protection
- Wide 4.5V to 24V Operating Input Range
- Output Adjustable from 0.92V to 21.6V
- Available in SOP-8/SOP-8 (FD) Package
- Build in skip mode at light loading in G5796A/G5797A

## Applications

- DSL Modems
- Distributed Power Systems
- Pre-Regulator for Linear Regulators

## General Description

The G5796/G5797 is a monolithic step-down switch mode regulator with a built in internal power MOSFET. It achieves 2A/3A continuous output current over a wide input supply range with excellent load and line regulation.

Current mode operation provides fast transient response and eases loop stabilization.

Provide skip mode in G5796A/G5797A. When loading too light clock skip several cycle proportional to load.

Fault condition protection includes cycle-by-cycle current limiting, output short circuit protection and thermal shutdown. In shutdown mode the regulator draws 32μA of supply current. Programmable soft-start overwrites the internal soft-start for various requirement of output power up ramp and minimizes the inrush supply current at initial startup.

The G5796/G5797 requires a minimum number of readily available standard external components. It is available in a SOP-8/SOP-8 (FD) package.

## Ordering Information

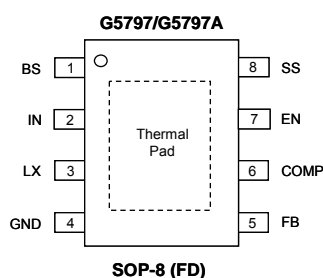
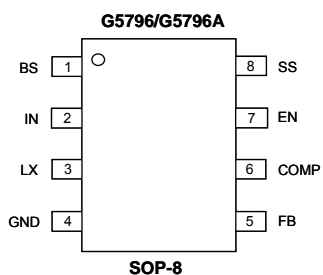
ORDER NUMBER	MARKING	LIGHT LOAD	TEMP. RANGE	PACKAGE (Green)
G5796P11U	G5796	PWM MODE	-40°C to +85°C	SOP-8
G5796AP11U	G5796A	SKIP MODE	-40°C to +85°C	SOP-8
G5797F11U	G5797	PWM MODE	-40°C to +85°C	SOP-8 (FD)
G5797AF11U	G5797A	SKIP MODE	-40°C to +85°C	SOP-8 (FD)

Note: P1: SOP-8 F1: SOP-8 (FD)

1: Bonding Code

U : Tape & Reel

## Pin Configuration



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

## Typical Application Circuit

