# 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.

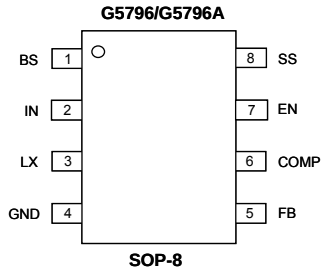
The G5796/G5797 requires a minimum number of readily available standard external components. It is available in a SOP-8/SOP-8 (FD) package.

## Ordering Information

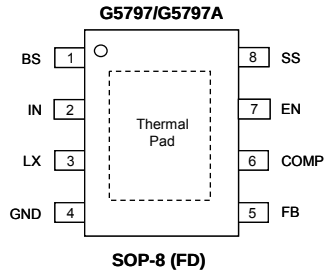
| ORDER NUMBER | MARKING | LIGHT LOAD | TEMP. RANGE | PACKAGE (Green) |
|---|---|---|---|---|
| G5796P11U | G5796 | PWM MODE | -40°C to +85°C | SOP-8 |
| G5796AP11U | G5796A | SKIP MODE | -40°C to +85°C | SOP-8 |
| G5797F11U | G5797 | PWM MODE | -40°C to +85°C | SOP-8 (FD) |
| G5797AF11U | G5797A | SKIP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




SOP-8




SOP-8 (FD)

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

## Typical Application Circuit

