

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

Features

- 2A/3A Output Current
- Internal 100mΩ RDS-ON High-Side and 100mΩ RDS-ON Low-Side Power Switches
- Available two kinds of delay in PG
PG pin is detect FB until threshold then immediately react in G579X
PG pin is detect FB until threshold then delay 220mS react in G579XA
- Stable with Low ESR Output Ceramic Capacitors
- 32μA Shutdown Mode
- Fixed 500kHz Frequency
- Thermal Shutdown
- Cycle-by-Cycle Over Current Protection
- Wide 4.5V to 24V Operating Input Range
- Vref =0.8V +-2%
- Internal soft start
- Available in SOP-8/SOP-8 (FD) Package

Applications

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

General Description

The G5798/G5799 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.

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. Internal soft-start for output power up ramp and minimizes the inrush supply current at initial startup.

PG in G579X is open-drain pin detect from FB. When $FB > 0.92XV_{ref}$, PG is high impedance and $FB < 0.85XV_{ref}$, PG is low impedance.

G579XA add typical 220mS deglitch timeout period when $FB > 0.92XV_{ref}$ to make sure PG signal.

The G5798/G5799 requires a minimum number of readily available standard external components. It is available in a SOP-8 (FD) package.

Ordering Information

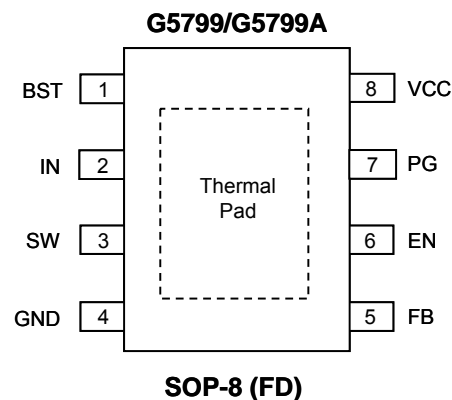
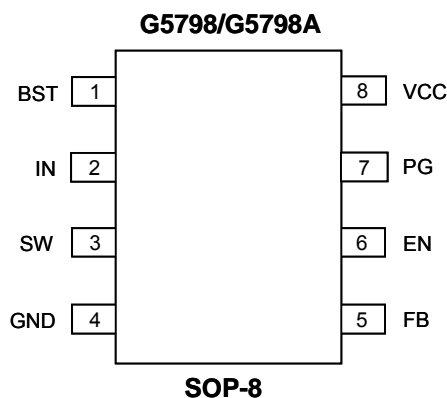
ORDER NUMBER	MARKING	PG DELAY TIME	TEMP. RANGE	PACKAGE (Green)
G5798P11U	G5798	No delay	-40°C to +85°C	SOP-8
G5798AP11U	G5798A	delay 220mS	-40°C to +85°C	SOP-8
G5799F11U	G5799	No delay	-40°C to +85°C	SOP-8 (FD)
G5799AF11U	G5799A	delay 220mS	-40°C to +85°C	SOP-8 (FD)

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.