

## General Description

The AOZ2262QI-18 is a high-efficiency, easy-to-use DC/DC synchronous buck regulator that operates up to 28V. The device is capable of supplying 10A of continuous output current with an output voltage adjustable down to 0.8V ( $\pm 1.0\%$ ).

A proprietary constant on-time PWM control with input feed-forward results in ultra-fast transient response while maintaining relatively constant switching frequency over the entire input voltage range. The on-time can be externally programmed up to 1.3 $\mu$ s.

The device features multiple protection functions such as  $V_{CC}$  under-voltage lockout, cycle-by-cycle current limit, output over-voltage protection, short-circuit protection, and thermal shutdown.

The AOZ2262QI-18 is available in a 4mm x 4mm QFN-23L package and is rated over a  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  ambient temperature range.

## Features

- Wide input voltage range
  - 2.7V to 28V
- 10A continuous output current
- Output voltage adjustable down to 0.8V ( $\pm 1.0\%$ )
- Low  $R_{DS(ON)}$  internal NFETs
  - 22m $\Omega$  high-side
  - 8m $\Omega$  low-side
- Constant On-Time with input feed-forward
- Programmable on-time up to 1.3 $\mu$ s
- Selectable PFM light load operation
- Ceramic capacitor stable
- Adjustable soft start
- Ripple reduction
- Power Good output
- Integrated bootstrap diode
- Cycle-by-cycle current limit
- Short-circuit protection
- Thermal shutdown
- Thermally enhanced 4mm x 4mm QFN-23L package

## Applications

- Portable computers
- Compact desktop PCs
- Servers
- Graphics cards
- Set-top boxes
- LCD TVs
- Cable modems
- Point-of-load DC/DC converters
- Telecom/Networking/Datacom equipment

































