

Product Overview

FAN2360AMPX: 10 A Synchronous Buck Regulator

For complete documentation, see the data sheet.

The FAN2360AMPX is a highly efficient integrated synchronous buck regulator. The regulator is capable of operating with an input range from 4.5 V to 24 V and supporting up to 10 A continuous load currents. The FAN2360A utilizes Fairchild's constant on-time control architecture to provide excellent transient response and to maintain a relatively constant switching frequency. This device utilizes Pulse Frequency Modulation (PFM) mode to maximize light-load efficiency by reducing switching frequency when the inductor is operating in discontinuous conduction mode at light loads, while clamping the minimum frequency above the audible range with ultrasonic mode. Switching frequency and over-current protection can be programmed to provide a flexible solution for various applications. Output over-voltage, under-voltage, over-current, and thermal shutdown protections help prevent damage to the device during fault conditions. After thermal shutdown is activated, a hysteresis feature restarts the device when normal operating temperature is reached.

Features

- VIN Range: 4.5 V to 24 V
- High Efficiency: Over 96% Peak
- Continuous Output Current: 10 A
- PFM Mode for Light-Load Efficiency
- Excellent Line and Load Transient Response
- Precision Reference: $\pm 1\%$ Over-Temperature
- Output Voltage Range: 0.6 to 5.5 V
- Programmable Frequency: 200 kHz to 1.5 MHz
- Programmable Soft-Start
- Low Shutdown Current

For more features, see the data sheet

Applications

- Servers, Desktop Computers
- Notebooks, Netbooks
- Game Consoles
- Telecommunication
- Storage

Part Electrical Specifications

Product	Compliance	Status	Topology	Control Mode	V _{oc} Min (V)	V _{oc} Max (V)	V _o Typ (V)	I _o Typ (A)	Efficiency (%)	f _{sw} Typ (kHz)	Package Type
FAN2360AMPX	Pb-free Halide free	Active	Step-Down	Hysteretic	4.5	24	Adjustable	10	≥90%	Adjustable	PQFN-34

For more information please contact your local sales support at www.onsemi.com.

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