

Product Overview

FSL3276ALR: Green Mode Fairchild Buck Switch

For complete documentation, see the data sheet.

The FSL3276ALR integrate Pulse Width Modulator (PWM) and SenseFET is specifically designed for high-performance offline buck, buck-boost, and non-isolation flyback Switched Mode Power Supplies (SMPS) with minimal external components. This device integrates a high-voltage power regulator that enables operation without auxiliary bias winding. An internal transconductance amplifier reduces external components for the feedback compensation circuit. The integrated PWM controller includes: 10 V regulator for no external bias circuit, Under-Voltage Lockout (UVLO), Leading-Edge Blanking (LEB), an optimized gate turn-on / turn-off driver, EMI attenuator, Thermal Shutdown (TSD), temperature-compensated precision current sources for loop compensation, and fault-protection circuitry. Protections include: Overload Protection (OLP), Over-Voltage Protection (OVP), Open Feedback Loop Protection (OFLP), and Abnormal Over-Current Protection (AOCP). FSL3276ALR offers good soft-start performance during startup. The internal high-voltage startup switch and the Burst-Mode operation with very low operating current reduce the power loss in Standby Mode. As the result, it is possible to reach power loss of 120 mW without external bias and 25 mW with external bias when input voltage is 230 VAC.

Features

- Built-in Avalanche Rugged SenseFET: 650 V
- Fixed Operating Frequency: 50 kHz
- No-Load Power Consumption: $\leq 25\text{ mW}$ at 230 VAC with External Bias; $\leq 120\text{ mW}$ at 230 VAC without External Bias
- No Need for Auxiliary Bias Winding
- Frequency Modulation for Attenuating EMI
- Pulse-by-Pulse Current Limiting
- Ultra-Low Operating Current: 250 μA
- Built-in Soft-Start and Startup Circuit
- Adjustable Peak Current Limit
- Built-in Transconductance (Error) Amplifier

For more features, see the data sheet

Applications

- This product is general usage and suitable for many different applications.

Part Electrical Specifications

Product	Compliance	Status	Control Mode	f_{sw} Typ (kHz)	f_{jitter} Typ (%)	Stand-by Mode	$R_{DS(O)}$ Typ (Ω)	$V_{DSS}^{(BR)}$ Max (V)	I_{Peak} (mA)	HV Start-up Min (V)	DSS (mA)	UVLO	Short Circuit Protection	Over Power Compensation	Brown-out	Latch	Package Type
FSL3276ALRN	Pb-free Halide free	Active	Current Mode	50			20	650	300	Yes		Yes	Yes			No	PDIP-7

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

Created on: 10/16/2019