

Product Overview

FSQ500L: 700V Integrated Power Switch with 130kHz frequency and no bias winding for 2.5W offline flyback converters

For complete documentation, see the data sheet.

The FSQ500L is specially designed for a replacement of linear power supplies with low cost. This device combines current-mode Pulse Width Modulator (PWM) with a senseFET. The integrated PWM controller features include: a fixed oscillator, Under Voltage Lockout (UVLO) protection, Overload Protection (OLP), Leading-Edge Blanking (LEB), an optimized gate turn-on/turn-off driver, Thermal Shutdown (TSD) protection with hysteresis, and temperature-compensated precision-current sources for loop compensation. When compared to a linear power supply, the FSQ500L device reduces total size and weight, while increasing efficiency, productivity, and system reliability. This device provides a basic platform for cost-effective flyback converters

Features

- Single Chip 700V SenseFET Power Switch
- Precision Fixed Operating Frequency: 130kHz
- No-load consumption 250mW at 265VAC with Burst Mode and Down to 60mW with External Bias
- Internal Startup Switch
- Soft-Start Time Tuned by External Capacitor
- Under-Voltage Lockout (UVLO) with Hysteresis
- Pulse-by-Pulse Current Limit
- Overload Protection (OLP) and Internal Thermal Shutdown Function (TSD) with Hysteresis
- Auto-Restart Mode
- No Need for Auxiliary Bias Winding

For more features, see the data sheet

Applications

- DVD
- STB
- Video Game Console
- Consumer Appliances

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} Max (V)	I_{Peak} (mA)	HV Start-up Min (V)	DSS (mA)	UVLO	Short Circuit Protection	Over Power Compensation	Brown-out	Latch	Package Type
FSQ500L	Pb-free Halide free	Active	Current Mode	130			25	700	280	Yes		Yes	Yes			No	SOT-223-4 / TO-261-4

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

Created on: 10/19/2019