

Product Overview

FSL117MRIN: 700V Integrated Power Switch with Line OVP and Abnormal OCP for 10Watt offline flyback converters

For complete documentation, see the data sheet.

The FSL117MRIN is an integrated Pulse Width Modulation (PWM) controller and 700V SenseFET specifically designed for offline Switch-Mode Power Supplies (SMPS) with minimal external components. The PWM controller includes an integrated fixed-frequency oscillator, Line Over-Voltage Protection (LOVP), Under-Voltage Lockout (UVLO), Leading-Edge Blanking (LEB), optimized gate driver, internal soft-start, temperature-compensated precise current sources for loop compensation, and self-protection circuitry. Compared with a discrete MOSFET and PWM controller solution, the FSL117MRIN can reduce total cost, component count, size, and weight; while simultaneously increasing efficiency, productivity, and system reliability. This device provides a basic platform for cost-effective design of a flyback converter.

Features

- Advanced Soft Burst-Mode Operation for Low Standby Power and Low Audible Noise
- Random Frequency Fluctuation (RFF) for Low EMI
- Under 50 mW Standby Power Consumption at 265 VAC, No-load Condition with Burst Mode
- Pulse-by-Pulse Current Limit
- Various Protection Functions: Overload Protection (OLP), Over-Voltage Protection (OVP), Abnormal Over-Current Protection (AOCP), Internal Thermal Shutdown (TSD) with Hysteresis, Output-Short Protection (OSP), Line Over-Voltage Protection (LOVP), and Under-Voltage Lockout (UVLO) with Hysteresis
- Low Operating Current (0.4mA) in Burst Mode
- Internal Startup Circuit
- Internal Avalanche Rugged 700V SenseFET
- Built-in Soft-Start: 15ms
- Auto-Restart Mode

For more features, see the data sheet

Part Electrical Specifications

Product	Compliance	Status	Control Mode	f_{sw} Typ (kHz)	f_{jitter} Typ (%)	Stand-by Mode	$R_{DS(O)}$ Typ (Ω)	$V_{(BR)PSS}$ Max (V)	I_{Peak} (mA)	HV Start-up Min (V)	DSS (mA)	UVLO	Short Circuit Protection	Over Power Compensation	Brown-out	Latch	Package Type
FSL117MRIN	Pb-free Halide free	Active	Current Mode	67			8.8	700	800	Yes		Yes	Yes			No	PDIP-8

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

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