

SmartJitter™ Multi-Mode Flyback Controller

General Description

The RT7740MAH is an enhanced high-efficiency multi-mode PWM flyback controller, incorporating Richtek's proprietary SmartJitter™ technology. The innovative SmartJitter™ technology is used to reduce EMI emissions of a switch-mode power supply in green mode operation, and at the same time eliminate the output ripple due to frequency jittering. The RT7740MAH features multi-mode control to optimize the product performance.

The RT7740MAH operates as a current-mode PWM controller for flyback converters possessing comprehensive features, of which programmable protections consist of the propagation delay compensation, output overvoltage protection (OVP), external over-temperature protection (OTP), and bulk-capacitor brown-in/brown-out protection. With above features, the RT7740MAH enables one to achieve a cost-effective and compact design for a wide-range AC-DC conversion applications. The RT7740MAH is available in an SOT-23-6 package.

Features

- Proprietary SmartJitter™ Technology
 - ▶ Reducing EMI Emissions of SMPS
 - ▶ Eliminating Frequency-Jittering-Induced Output Ripple
- Ultra-Low Start-Up Current (< 3μA)
- Accurate Overcurrent Protection (OCP)
- Programmable Line Compensation
- Programmable Output Overvoltage Protection
- Programmable External Over-Temperature Protection
- Programmable Bulk-Capacitor Brown-In/Brown-Out Protection
- Driver Capability: 200mA–300mA
- High Noise Immunity

Applications

- Switching AC-DC Adapter
- NB Adapter
- TV/Monitor Standby Power
- PC Peripherals

Simplified Application Circuit

