

Fixed 5V Output, High Performance Low Cost PWM Power Switch

FEATURES

- Fixed 5V Output
- Integrated with 650V Power MOSFET and HV Startup Circuit
- Multi-Mode Control with Audio Noise Free Operation
- Supports Buck and Buck-Boost Topologies
- Less than 100mW Standby Power Loss
- Excellent Line and Load Regulation
- Built-in Soft Start
- Build in Protections:
 - Over Load Protection (OLP)
 - Cycle-by-Cycle Current Limiting (OCP)
 - Output Over Voltage Protection (OVP)
 - FB Abnormal Protection
 - Abnormal Over Current Protection (AOCP)
 - Over Temperature Protection (OTP)
- Available with SOP-8 Package

APPLICATIONS

- Auxiliary Power Supply
- Smart Home Appliance

TYPICAL APPLICATION CIRCUIT

GENERAL DESCRIPTION

KP320X family is a high performance PWM power switch for low power off-line application with minimum components in typical buck solution. This family has built-in high break down voltage MOSFET to withstand high surge input.

Unlike conventional PWM control, there's no fixed internal clock in KP320X to trigger the gate driver. The switching frequency is changed according to the load condition. The multi-mode PWM control is integrated to simplify circuit design and achieve good line and load regulation without audio noise generated. The peak current limit changes according to the real load condition for low standby power in no load.

KP320X integrates functions and protections of Under Voltage Lockout (UVLO), Cycle-by-cycle Current Limiting (OCP), Output Over Voltage Protection (OVP), Over Temperature Protection (OTP), FB Abnormal Protection, Over Load Protection (OLP) etc.

