

PP5200

Off-Line High Frequency SSR Flyback Controller

The PP5200 is a high frequency, multi-mode, Secondary Side Regulation (SSR) flyback controller, optimized for high performance, low EMI, low standby power consumption and wide output voltage range GaN/Si FETs PD solutions.

PP5200 uses multi-mode control to achieve high conversion efficiency in the whole load range. At full load, the IC operates in fixed frequency (110KHz) CCM mode. When the load reduces, it detects the MOSFET valley voltage and works in quasi-resonant (QR) mode. When the load goes lower, the IC will operate in green mode and burst mode to optimize efficiency and standby power.

PP5200 utilizes multi-mode control to enhance efficiency and standby performance, and follows the criteria of global standards such as DoE Level VI and EU CoC V5 Tier-2. PP5200 also integrated active X-CAP discharge function to eliminate extra resistor. PP5200 also provides excellent EMI-improved solutions and audio noise-free solutions.

PP5200 offers complete protections including brown-out protection, cycle-by-cycle current limiting (OCP), Over load protection (OLP), Secondary diode short protection (OTP), chip and external over temperature protection (OTP), over voltage protection (OVP), output short protection (OSP), ZCD pin UVP and OVP to prevent the circuit damage from the abnormal conditions.

PP5200 is available in SOIC-8 package.

FEATURES

- High performance flyback converter:
 - Ideal for applications from 18W to 100W
 - High efficiency over entire load range
 - Low standby power
 - Easily meets DoE Level VI and EU CoC V5 Tier-2
- Integrated high voltage startup circuit with brownout detection
- Integrated X-CAP discharge capability
- Optimize MOSFET Drive circuit and jitter for better EMI performance
- Current mode control with Cycle-by-Cycle current limit
- LEB (Leading-edge blanking) on CS Pin
- Complete fault protections: brownout protection, cycle-by-cycle current limiting (OCP), Over load protection (OLP), Secondary diode short protection, chip and external over temperature protection (OTP), over voltage protection (OVP), output short protection (OSP), ZCD pin UVP and OVP.
- Available in SOIC-8 package

APPLICATIONS

- ACDC adapter
- Battery Charger
- USB PD/QC/Proprietary protocol chargers

TYPICAL APPLICATION

