WIW1101

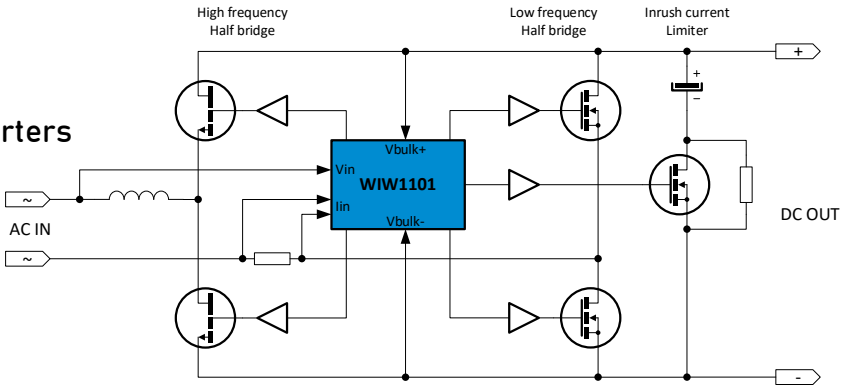
Digital controller for Totem Pole PFC stage in AC-DC converters optimized for GaN transistors

DESCRIPTION

The WIW1101 is a digital AC-DC controller optimized for a wide bandgap (WBG) based SMPS. It is dedicated to controlling the totem pole PFC topology. The controller can operate the converter at high switching frequencies while ensuring ZVS operation for all the power transistors using a proprietary algorithm. The high frequency of operation enables to reduce the magnetic components size helping to further reduce the converter size, weight and thickness.

APPLICATIONS

- High efficiency power conversion
- High power density converters
- High performance AC-DC power converters
- On Board Charger for electric mobility
- USB PD, laptop & notebook adapter
- Display & monitor SMPS



FEATURES

- Switching frequency up to 2 MHz
- CrCM control mode to ensure full Zero Voltage Switching (ZVS)
- Smooth zero cross transition with no current spike
- Accurate system Brown in and Brown out
- Inrush current management without relay or thermistor
- Integrated protections (OCP, OVP, OTP, OPP)
- Low standby power consumption (~18 mW)
- EMC compliant demoboard
- High efficiency system capability (> 98 %)
- 48 pins LQFP package