

YX5301 –42V V_{IN} Flyback converter with 65V/1.5A Integrated Switch

1 Features

- Wide input voltage range of 3V to 42V
- Integrated 65V/1.5A power MOSFET
- Set V_{OUT} with single external resistor
- No opto-coupler or third winding of transformer required for V_{OUT} regulation
- High efficiency at light load mode (DCM)
- Low input quiescent current
- Internal compensation and soft-start function
- Shut down and Enable control
- Build-In UVLO and short circuit protection
- Over current and over temperature protection
- 5-Lead TSOT-23 Package

2 Applications

- Isolated Power supply for industrial, automotive, telecom equipment
- HVAC systems
- General Flyback, Buck-Boost, Buck converters
- Surveillance camera application

3 Description

The YX5301 is an isolated Flyback converter with high efficiency over a wide input voltage range of 3V to 42V. It directly measures output voltage from the primary side Flyback waveform and no needs opto-coupler or third winding for regulation. Only a single resistor required to set the output voltage. Internal compensation and soft-start functions decreases the number of external components. To maintain the high efficiency and minimize the output voltage ripple, the YX5301 operates in Burst Mode at light load. The integrated 65V/1.5A power switch provides up to 6W of output power.

The YX5301 features under voltage lockout (UVLO), short circuit protection (SCP) and over temperature protection (OTP) to help the device operate safely and reliably.

The YX5301 is available in 5-lead TSOT-23 package.

4 Device Information

PART NUMBER	PACKAGE	BODY SIZE (NOM)
YX5301EADAD	5L TSOT-23	2.9mm × 2.8mm

5 Simplified Application circuit for Isolated Flyback Converter

