

## YX5305 –42V $V_{IN}$ Flyback converter with 65V/1.5A Integrated Switch

### 1 Features

- Wide input voltage range of 2.7V 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
- Programmable soft-start and maximum switching frequency
- Shut down and Enable control
- Build-In UVLO and short circuit protection
- Over current and over temperature protection
- 8-lead DFN-8 (3mmx3mm) 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 YX5305 is an isolated Flyback converter with high efficiency over a wide input voltage range of 2.7V 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. The programmable soft-start and maximum switching frequency functions provide users flexible system design. To maintain the high efficiency and minimize the output voltage ripple, the YX5305 operates in Burst Mode at light load. The integrated 65V/1.5A power switch provides up to 6W of output power.

The YX5305 features under voltage lockout (UVLO), short circuit protection (SCP) and over temperature protection (OTP) to help the device operate safely and reliably.

The YX5305 is available in 8-lead DFN package.

### 4 Device Information

| PART NUMBER | PACKAGE | BODY SIZE (NOM) |
|-------------|---------|-----------------|
| YX5305AAEAG | DFN-8   | 3mm × 3mm       |

### 5 Simplified Application circuit for Isolated Flyback Converter

