

## NCP1345

# Highly integrated quasi-resonant flyback controller for off-line USB-PD and USB Type-C power converters.

## Product Overview

For complete documentation, see the data sheet.

The NCP1345 is a highly integrated quasi-resonant flyback controller suitable for designing high-performance off-line USB-PD and USB Type-C power converters. The included dual-pin VCC architecture allows direct connection to the aux winding for simplified VCC management with a reduced parts count and increased performance.

The NCP1345 also features a precise, primary side based output current limiting circuit to ensure a constant output current limit regardless of programmed output voltage, or nameplate output power.

### Features

- 150-V Wide Range Vcc Architecture
- Auto-Tuning Skip
- Rapid Frequency Foldback
- Constant Output Current Limiting
- SR Spike Reduction Circuitry (Adaptive Gate Drive)
- Improved Frequency Jittering
- 350 KHz high frequency QR
- Internal 700 V Startup w X2 discharge

### Applications

- USB PD

### Benefits

- Reduces external part counts
- Adjusts skip entry based on VOUT
- Improved Light Load Efficiency
- Meet LPS(Limited Power Source) requirements in PPS
- Enables Lower Voltage Rated SR FETs
- Softer EMI Signature
- Enable smaller magnetic designs
- Improve standby power

### End Products

- Phone, Tablet, & Notebook Chargers
- Aftermarket USB PD Multi-Port Chargers
- USB C Enabled Wall Sockets

Product	Pricing (\$/Unit)	Compliance	Status	Topology	Control Mode	f <sub>sw</sub> Typ (kHz)	Stand-by Mode	UVLO (V)	Short Circuit Protection	Latch	Soft Start	V <sub>cc</sub> Max (V)	Drive Cap. (mA)	Package Type
NCP1345Q00D1 R2G	0.6		NEW	Flyback	Current Mode	Variable	Yes	9	Yes	No	Yes	38	500 / 800	SOIC-9 NB
NCP1345Q01D1 R2G	0.6		NEW	Flyback	Current Mode	Variable	Yes	9	Yes	No	Yes	38	500 / 800	SOIC-9 NB