

Product Overview

NCP1395: Controller, High Performance Resonant Mode

For complete documentation, see the data sheet.



The NCP1395A/B offers everything needed to build a reliable and rugged resonant mode power supply. Its unique architecture includes a 1 MHz Voltage Controller Oscillator whose control mode brings flexibility when an ORing function is a necessity, e.g. in multiple feedback paths implementations. Protections featuring various reaction times, e.g. immediate shutdown or timer-based event, brown-out, broken opto-coupler detection etc., contribute to a safer converter design, without engendering additional circuitry complexity. An adjustable deadtime also helps lowering the shoot-through current contribution as the switching frequency increases. Finally, an on-board operational transconductance amplifier allows for various configurations, including constant output current working mode or traditional voltage regulation.

Features

- High Frequency Operation from 50 kHz up to 1.0 MHz
- Selectable Minimum Switching Frequency with $\pm 3\%$ Accuracy
- Timer-Based Input with Auto-Recovery Operation for Delayed Event Reaction
- Adjustable Deadtime from 150 ns to 1.0 μ s
- Startup Sequence via an Adjustable Soft--Start
- Brown-Out Protection for a Simpler PFC Association
- Latched Input for Severe Fault Conditions, e.g. Overtemperature or OVP
- Enable Input for Immediate Event reaction or Simple ON/OFF Control
- Operational Transconductance Amplifier (OTA) for Multiple Feedback Loops
- Low Startup Current of 300 μ A max

For more features, see the data sheet

Applications

- LCD/Plasma TV Converters
- High Power Ac--Dc Adapters for Notebooks
- Industrial and Medical Power Sources
- Offline Battery Chargers

