

Product Overview

UC2845B: High Performance Current Mode PWM Controller

For complete documentation, see the data sheet.

The UC3844B, UC3845B series are high performance fixed frequency current mode controllers. They are specifically designed for Off-Line and dc-to-dc converter applications offering the designer a cost-effective solution with minimal external components. These integrated circuits feature an oscillator, a temperature compensated reference, high gain error amplifier, current sensing comparator, and a high current totem pole output ideally suited for driving a power MOSFET.

Also included are protective features consisting of input and reference undervoltage lockouts each with hysteresis, cycle-by-cycle current limiting, a latch for single pulse metering, and a flip-flop which blanks the output off every other oscillator cycle, allowing output deadtimes to be programmed from 50% to 70%.

These devices are available in an 8-pin dual-in-line and surface mount (SO-8) plastic package as well as the 14-pin plastic surface mount (SO-14). The SO-14 package has separate power and ground pins for the totem pole output stage.

The UCX844B has UVLO thresholds of 16 V (on) and 10 V (off), ideally suited for off-line converters. The UCX845B is tailored for lower voltage applications having UVLO thresholds of 8.5 V (on) and 7.6 V (off).

Features

- Trimmed Oscillator for Precise Frequency Control
- Oscillator Frequency Guaranteed at 250 kHz
- Current Mode Operation to 500 kHz Output Switching Frequency
- Output Deadtime Adjustable from 50% to 70%
- Automatic Feed Forward Compensation
- Latching PWM for Cycle-By-Cycle Current Limiting
- Internally Trimmed Reference with Undervoltage Lockout
- High Current Totem Pole Output
- Undervoltage Lockout with Hysteresis
- Low Startup and Operating Current

For more features, see the data sheet

Part Electrical Specifications

Product	Compliance	Status	Topology	Control Mode	f_{sw} Typ (kHz)	Stand-by Mode	UVLO (V)	Short Circuit Protection	Latch	Soft Start	V_{CC} Max (V)	Drive Cap. (mA)	Package Type
UC2845BD1G	Pb-free Halide free	Active	Flyback	Current Mode	52	No	Yes	Yes	No	No	30	200 / 200	SOIC-8
UC2845BD1R2G	Pb-free Halide free	Active	Flyback	Current Mode	52	No	Yes	Yes	No	No	30	200 / 200	SOIC-8
UC2845BDG	Pb-free Halide free	Active	Flyback	Current Mode	52	No	Yes	Yes	No	No	30	200 / 200	SOIC-14
UC2845BDR2G	Pb-free Halide free	Active	Flyback	Current Mode	52	No	Yes	Yes	No	No	30	200 / 200	SOIC-14
UC2845BNG	Pb-free Halide free	Active	Flyback	Current Mode	52	No	Yes	Yes	No	No	30	200 / 200	PDIP-8

For more information please contact your local sales support at www.onsemi.com.

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