

Improved Current Mode PWM Controller

ADVANCED INFORMATION

FEATURES

- High current dual totem pole outputs (1.5A peak)
- Improved current sense amplifier with reduced noise sensitivity
- 100ns delay from shutdown, oscillator, and current sense inputs to output
- Differential current sense amplifier with 3 volts common mode range
- Trimmed oscillator discharge current—10ma, 6% guaranteed
- Accurate shutdown threshold—1 volt, 5% guaranteed
- TTL compatible oscillator sync pin thresholds

DESCRIPTION

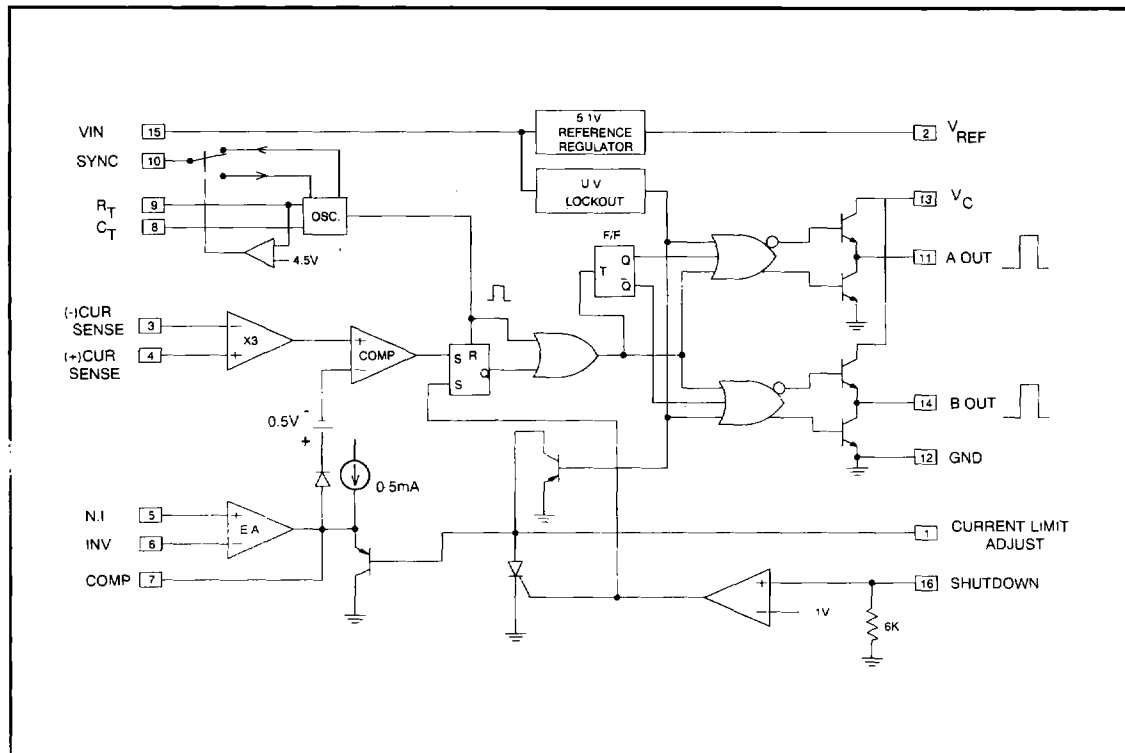
The UC1846A is a high performance version of the popular UC1846 series of current mode controllers, and is intended for both design upgrades and new applications where speed and accuracy are important. All input to output delays have been minimized with no increase in quiescent current. Fast, 1.5 amp peak output stages have been added to allow rapid switching of power FETs.

Internal chip grounding has been improved to eliminate internal "noise" caused when driving large capacitive loads. This, in conjunction with an improved differential current sense amplifier, results in enhanced noise immunity.

A dual function sync pin with TTL thresholds functions as a sync output in the normal mode, and as a sync input if R_T (pin 9) is tied to V_{ref} (pin 16).

Other features include a trimmed oscillator discharge current (5%) for accurate frequency and dead time control, a 5%, 1 volt shutdown threshold, and 2kv minimum ESD protection on all pins.

BLOCK DIAGRAM



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