



MOTOROLA

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UC3842A, 43A UC2842A, 43A

High Performance Current Mode Controllers

The UC3842A, UC3843A series of high performance fixed frequency current mode controllers 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 a trimmed oscillator for precise duty cycle control, 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, programmable output deadtime, and a latch for single pulse metering.

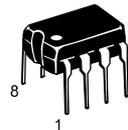
These devices are available in an 8-pin dual-in-line plastic package as well as the 14-pin plastic surface mount (SO-14). The SO-14 package has separate power and ground pins for the totem pole output stage.

The UCX842A has UYLO thresholds of 16 V (on) and 10 V (off), ideally suited for off-line converters. The UCX843A is tailored for lower voltage applications having UVLO thresholds of 8.5 V (on) and 7.6 V (off).

- Trimmed Oscillator Discharge Current for Precise Duty Cycle Control
- Current Mode Operation to 500 kHz
- 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
- Direct Interface with Motorola SENSEFET Products

HIGH PERFORMANCE CURRENT MODE CONTROLLERS

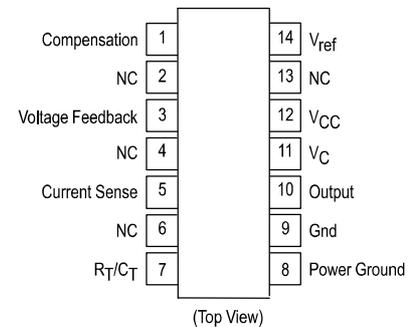
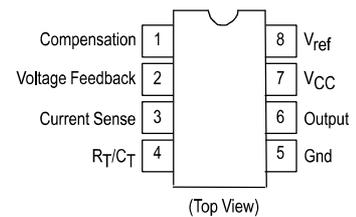
N SUFFIX
PLASTIC PACKAGE
CASE 626



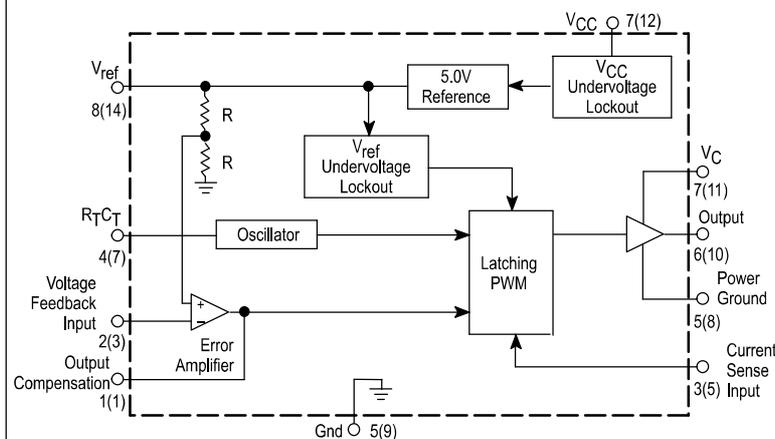
D SUFFIX
PLASTIC PACKAGE
CASE 751A
(SO-14)



PIN CONNECTIONS



Simplified Block Diagram



Pin numbers in parenthesis are for the D suffix SO-14 package.

ORDERING INFORMATION

Device	Operating Temperature Range	Package
UC3842AD	T _A = 0° to +70°C	SO-14
UC3843AD		SO-14
UC3842AN		Plastic
UC3843AN	T _A = -25° to +85°C	Plastic
UC2842AD		SO-14
UC2843AD		SO-14
UC2842AN		Plastic
UC2843AN		Plastic