

Power Factor Correction Preregulator 6kHz to 220kHz 16-Pin SOIC Tube

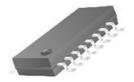
Manufacturer: <u>Texas Instruments, Inc</u>

Package/Case: SOP16

Product Type: Power Management ICs

RoHS: RoHS Compliant/Lead free

Lifecycle: Active



Images are for reference only

Inquiry

General Description

The UCC3817A and the UCC3818A family provides all the functions necessary for active power factor corrected preregulators. The controller achieves near unity power factor by shaping the ac input line current waveform to correspond to that of the ac input line voltage. Average current mode control maintains stable, low distortion sinusoidal line current.

Designed in Texas Instrument's BiCMOS process, the UCC3817A/UCC3818A offers new features such as lower start-up current, lower power dissipation, overvoltage protection, a shunt UVLO detect circuitry, a leading-edge modulation technique to reduce ripple current in the bulk capacitor and an improved, low-offset (±2 mV) current amplifier to reduce distortion at light load conditions.

The UCC3817A/18A family of PFC Controllers is directly pin for pin compatible with the UCC3817/18 family of devices. Only the output stage of UCC3817A family has been modified to allow use of a smaller external gate drive resistor values. For some power supply designs where an adequately high enough gate drive resistor can not be used, the UCC3817A/18A family offers a more robust output stage at the cost of increasing the internal gate resistances. The gate drive of the UC3817A/18A family however remains strong at ± 1.2 A of peak current capability.

UCC3817A offers an on-chip shunt regulator with low start-up current, suitable for applications utilizing a bootstrap supply. UCC3818A is intended for applications with a fixed supply (VCC). Both devices are available in the 16-pin D, N and PW packages.

Key Features

Controls Boost Preregulator to Near-Unity Power Factor

Limits Line Distortion

World Wide Line Operation

Overvoltage Protection

Accurate Power Limiting

Average Current Mode Control

Improved Noise Immunity

Improved Feed-Forward Line Regulation

Leading Edge Modulation

150-μA Typical Start-Up Current

Low-Power BiCMOS Operation

12-V to 17-V Operation

Frequency Range of 6 kHz to 220 kHz

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Recommended For You

UCC28064ADR UCC3637N UCC27517DBVR

Texas Instruments, Inc Texas Instruments, Inc Texas Instruments, Inc

SOP16 DIP-18 SOT23-5

UCC2946TPWRQ1 UCC28730QDRQ1 UCC21222QDRQ1

Texas Instruments, Inc Texas Instruments, Inc Texas Instruments, Inc

TSSOP8 SOP7 SOP16

UCD9090QRGZRQ1

UCC27531QDBVRQ1

UCC27511AQDBVRQ1

Texas Instruments, Inc

Texas Instruments, Inc

Texas Instruments, Inc

Texas Instruments, Inc

VQFN-48

SOT23-6

UCC2803QDRQ1

Texas Instruments, Inc

UCC28951QPWRQ1

UCC21320QDWKRQ1 Texas Instruments, Inc

SOP8

TSSOP24

SOIC-14

SOT23-6

UCC27322QDGNRQ1

Texas Instruments, Inc

UCC28950QPWRQ1 Texas Instruments, Inc UCC2808AQDR-2Q1 Texas Instruments, Inc

HVSSOP-8

TSSOP24

SOP8