Version 2.3, 22 March 2010

CCM-PFC

ICE2PCS01

ICE2PCS01G

Standalone Power Factor Correction (PFC) Controller in Continuous Conduction Mode (CCM)

Power Management & Supply

Never stop thinking.

CCM-PFC

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Standalone Power Factor Correction (PFC) Controller in Continuous Conduction Mode (CCM)

ICE2PCS01
PG-DIP-8

ICE2PCS01G
PG-DSO-8

Product Highlights

- **Leadfree DIP and DSO Package**
- **Wide Input Range**
- **Optimized for applications which require fast Startup**
- **Output Power Controllable by External Sense Resistor**
- **Programmable Operating Frequency**
- **Output Over-Voltage Protection**
- **Fast Output Dynamic Response during Load Jumps**

Features

- Ease of Use with Few External Components
- Supports Wide Range
- Average Current Control
- External Current and Voltage Loop Compensation for Greater User Flexibility
- Programmable Operating/Switching Frequency (50kHz - 250kHz)
- Max Duty Cycle of 95% (at 25°C) at 125kHz
- Trimmed Internal Reference Voltage (3V±2% at 25°C)
- VCC Under-Voltage Lockout
- Cycle by Cycle Peak Current Limiting
- Output Over-Voltage Protection
- Open Loop Detection
- Enhanced Dynamic Response
- Short Startup(SoftStart) duration
- Fulfills Class D Requirements of IEC 1000-3-2
- Soft Overcurrent Protection
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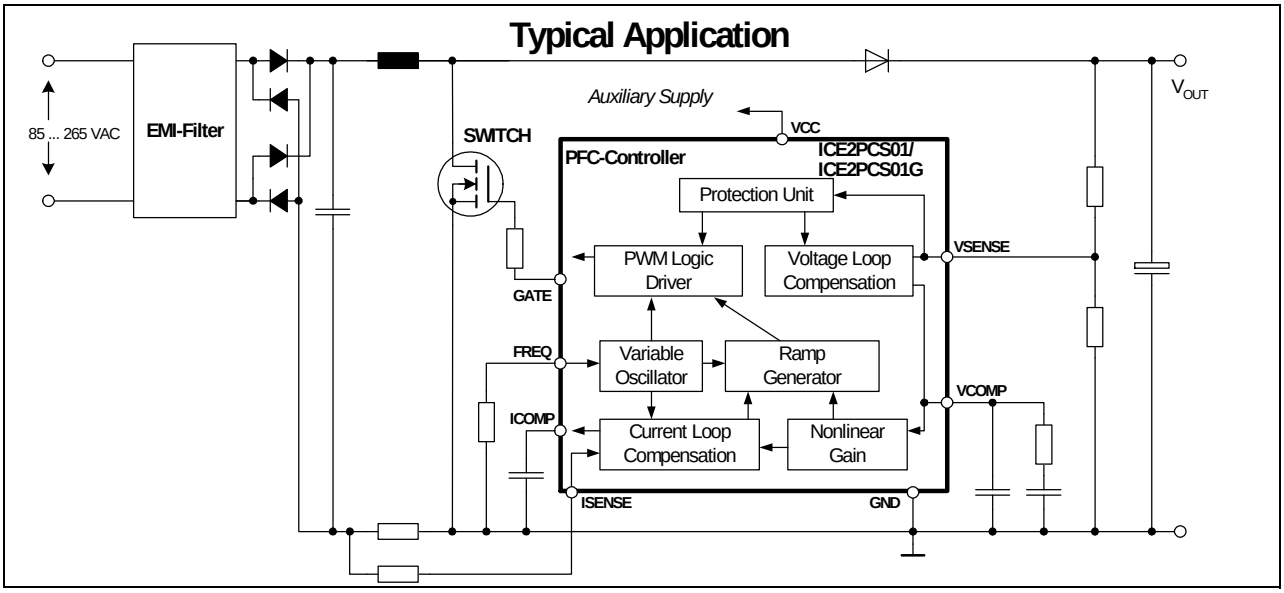
Description

The ICE2PCS01/G is a 8-pin wide input range controller IC for active power factor correction converters. It is designed for converters in boost topology, and requires few external components. Its power supply is recommended to be provided by an external auxiliary supply which will switch on and off the IC.

The IC operates in the CCM with average current control, and in DCM only under light load condition. The switching frequency is programmable by the resistor at pin 4. Both compensations for the current and voltage loop are external to allow full user control.

There are various protection features incorporated to ensure safe system operation conditions. The internal reference is trimmed (3V±2%) to ensure precise protection and control level. The device has a fast startup time with controlled peak start up current.

Typical Application



Type	Package
ICE2PCS01	PG-DIP-8
ICE2PCS01G	PG-DSO-8