

## NCP1602

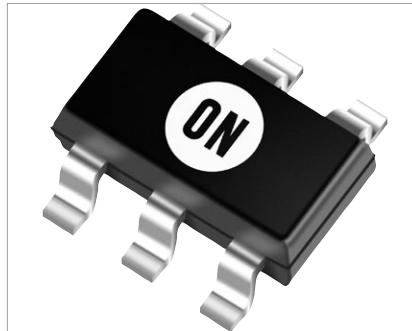
# Power Factor Controller, Enhanced Light Load Efficiency



**The NCP1602 is a 6-pin PFC controller that is designed to drive PFC boost stages. It is based on an innovative Valley Synchronized Frequency Fold-back (VSFF) method.** In this mode, the circuit classically operates in Critical conduction Mode when control voltage exceeds a programmable value. When  $V_{control}$  is below this preset level the NCP1602 linearly decays the frequency down to about 30 kHz until  $V_{control}$  reaches the SKIP mode threshold. VSFF maximizes the efficiency at both nominal and light load. In particular, the stand-by losses are reduced to a minimum. Internal circuitry allows near-unity power factor even when the switching frequency is reduced. Housed in a TSOP6 package, the circuit also incorporates the features necessary for robust and compact PFC stages, with few external components.

### APPLICATION EXAMPLES

- Flat panel TV
- High power adapters
- Dimmable fluorescent ballasts
- LED power supply and drivers



Package Photo

### KEY FEATURES

- Critical conduction mode with current controlled frequency foldback
- Two-level boost follower line level dependent
- Valley synchronized frequency fold-back
- Works with or without a transformer w/ ZCD winding
- Dynamic response enhancer