

## High Performance PFC Controller

## DESCRIPTIONS

OB6563 is an active transition-mode (TM) power factor correction (PFC) controller for AC-DC switching mode power supply applications.

OB6563 features an internal start-up timer for stand-alone applications, a one quadrant multiplier with THD optimizer for near unity power factor, zero current detector (ZCD) to ensure TM operation, a current sensing comparator with built-in leading-edge blanking, and a totem pole output ideally suited for driving a power MOSFET.

OB6563 offers great protection coverage including system over-voltage protection (OVP) to eliminate runaway output voltage due to load removal, VCC under voltage lockout (UVLO), cycle-by-cycle current limiting, multiplier output clamping that limit maximum peak switch current, and gate drive output clamping for external power MOSFET protection.

With added system open loop protection feature, OB6563 shuts down system when the feedback loop is open.

In OB6563, the dynamic OVP sensing current is set to 10uA, which will decrease system standby power greatly. When used with On-Bright PWM controller OB2298 or Quasi-Resonant controller OB2203 in a 150W AC/DC power design, it can deliver <0.4W standby power at universal AC range input.

OB6563 is offered in SOP-8 and DIP-8 packages.

## FEATURES

- Transition Mode (TM) Operation
- One quadrant multiplier with THD optimizer
- Low Dynamic OVP Sensing Current Setting
- Low Start-up Current and Operating Current
- Cycle-by-Cycle Current Limiting
- Internal RC Filter
- Trimmed 1.5% Internal Bandgap Reference
- Under Voltage Lockout with Hysteresis
- Dynamic and Static Output Over-Voltage Protection (OVP)
- Internal Start-up Timer for Stand-alone Applications
- Disable Function
- Totem Pole Output with High State Clamping
- System Open Loop Protection
- Proprietary Audio Noise Free Operation
- 9.5V to 28V wide range of VCC voltage

## APPLICATIONS

- Electronic Ballast
- AC-DC SMPS

## TYPICAL APPLICATION

