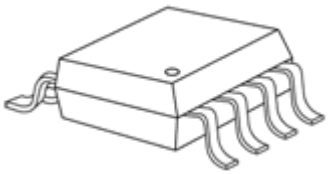
AC/DC LED Controller with 4-step Dimming Capability

Features

- Efficiency> 85% when V_{AC} =110V, I_{LED}=100mA, V_{LED} =80V
- PWM switching control
- 4-step dimming capability
- Operation with active power factor correction
- THD < 15% when V_{AC} =110V, I_{LED}=100mA, V_{LED} =80V
- Full protections: OTP/UVLO/OVP/OCP/LED open-/short-circuit
- Current setting accuracy within ±5%
- Full range line regulation within 1.7%
- Available in SOP-8L package

Small Outline Package



GD: SOP8L-150-1.27

Product Description

MBI6904 is a high efficiency buck-boost AC/DC controller designed to deliver constant output current. The input voltage range of MBI6904 application is universal from 85V_{AC} to 265V_{AC}. It is featured by a PWM control scheme. MBI6904 is designed to operate with active power factor correction (PFC) circuit and is therefore capable of maintaining system power factor greater than 0.9 with proper design. MBI6904 regulates the output current within ±5% of the preset current by well controlling the external MOSFET. In addition, MBI6904 can operate with 4-step dimming. MBI6904 also protects the controller from fault conditions, inclusive of under voltage lock-out (UVLO), over voltage protection (OVP) and over current protection (OCP). To ensure the system reliability, over temperature protection (OTP) is built-in to prevent IC from over temperature (155°C) by turning off the external MOSFET. Once the temperature drops below 125°C, the external MOSFET will resume working. MBI6904 is available in SOP-8L package.

Applications

- T-8 CFL Replacement LED Solution
- E26/E27 Light Bulb Alternative LED Solution
- Flat Panel Lighting Solution
- General Illuminations

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