

Abstract To achieve high efficiency and reliability, multiphase interleaved converters with coupled inductors have been widely applied. In this paper, a coupled inductor design method for 2-phase ...

What is the importance of sizing a solar PV system? Appropriate system design and component sizing is fundamental requirement for reliable operation, better performance, safety and longevity of solar PV ...

This paper presents a single inductor multiple outputs parallel string LED driver with time multiplexing control schemes. Two kinds of pulse-width modulation schemes are presented and compared.

The rule of thumb to design the inductor is to set the peak-to-peak ripple current in the inductor to 30 percent of the nominal LED current. It is a good practice to calculate the total volt drop across the ...

In this article we will design a practical low cost LED driver circuit using LNK302 Switching IC to power four LEDs (in series) which can provide 200 Lumens operating at 13.6V and ...

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1. Basic circuit topology and working principle The LED drive circuit based on the inductor boost switching converter is widely used in the backlighting of battery-powered consumer portable ...

Description This reference design implements single-phase inverter (DC/AC) control using a C2000TM microcontroller (MCU). The design supports two modes of operation for the inverter: a voltage source ...

To achieve high voltage gains and high power efficiency, a hybrid light emitting diode (LED) driver with a single inductor is proposed in this paper. Unlike existing LED sink drivers, the ...

The new application circuit uses a single inductor rather than a bulky transformer, saving board space and BOM cost while still meeting the standard performance specifications of an LED driver.

