LED Drivers Fuse a 3 mm x 4 mm Package for LED Requirements From 700 mA to 1.5A

The ZXLD132X Inductive DC/DC Converter Series from Zetex drives single or multiple LEDs with currents from 700 mA to 1.5A, in buck, boost and buck/boost configurations. The driver's 3 mm × 4 mm DFN package is said to reduce the circuit footprint of existing designs by up to 50 percent. A variable "on/off" time-control scheme, with an adjustable peak switch current limit, makes chips simple to control. Both LED current and peak inductor current can be set accurately and independently. A feedback control circuit ensures desirable load and current regulation, with LED current stability typically +/-3 percent throughout battery life and the extended, operating temperature range of –40ºC to 125ºC. LED current can be adjusted from 100 percent down to 10 percent of preset value by applying a DC voltage signal, and down to 2 percent using a PWM input. A thermal control circuit monitors an external thermistor, linearly reducing output current once temperature exceeds a predetermined threshold. The driver can be shut down by applying a low-level DC voltage signal. The ZXLD1320 buck mode driver provides up to 1.5A continuous LED current for an input voltage range of 4V to 18V. Providing up to a maximum of 24W of power, depending on supply voltage and external component selection, the device will suit halogen lamp replacement and battery driven applications. The ZXLD1321 boost mode driver produces 1A for an input voltage of 1V to 12V. The ZXLD1322 buck/boost mode driver produces 700 mA for an input voltage of 2.5V to 15V. Both ZXLD1321 and ZXLD1322 suit high power LED flashlight, LED back-up lighting and general LED driving applications.

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