



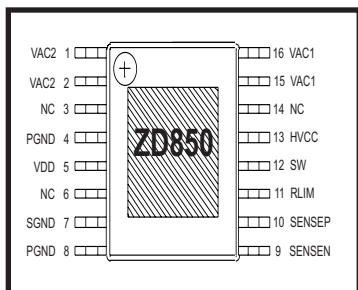
Features

- 4~16VAC on VAC1 and VAC2 with current up to 350mA
- 5~24VDC on HVCC and PGND with current up to 1.5A
- For One to Five High-Power LEDs in series per string
- High Efficiency Output Design
- Over-Temperature Thermal Protection
- Over-Voltage Circuit Protection
- Thermally Enhanced 16-Lead Exposed TSSOP Green Package

Applications

- Offline LED Lamps and Fixtures
- DC/DC LED Driver
- Decorative Lighting
- MR16 Lighting
- Industrial Lighting
- Automotive Lighting

Pin Configuration



16-Pin Exposed TSSOP

General Description



The ZD850 is a constant off-time, high power LED driver IC using a Buck Converter Topology that is capable of driving up to 1.5A of output current. It operates from an input voltage range of 4VAC to 16VAC or 5VDC to 24VDC and generates a regulated programmable constant output current for high power LEDs. A patent pending design technique with AC/DC bridge rectifier, linear regulator and internal high voltage NDMOS power switch has been designed on-chip to reduce component count by eliminating the need for an external power switch and diode bridge. Based on high efficient PFM control design, the minimum Off-Time in the controlled frequency range is set at a typical 1.5 μ s, allowing a good LED current regulation over a wide range of supply voltage with respect to using conventional transformers or E-transformers. Built-in thermal and over-voltage circuitry protects the power transistors from excessive power dissipation.

The ZD850 is available in a thermally enhanced 16-pin exposed TSSOP green package.

Ordering Information

Part Number	Temperature Range	Package Type
ZD850LEY	-40°C to +85°C	16-Pin TSSOP
ZD850EVB	n/a	Blank EVB
ZD850MR	n/a	Evaluation Board
ZD850KIT	n/a	ZD850MR + 1Wx3 LEDs + E-Transformer

Please contact the factory for pricing and availability on Tape-on-Reel option.

Typical Application

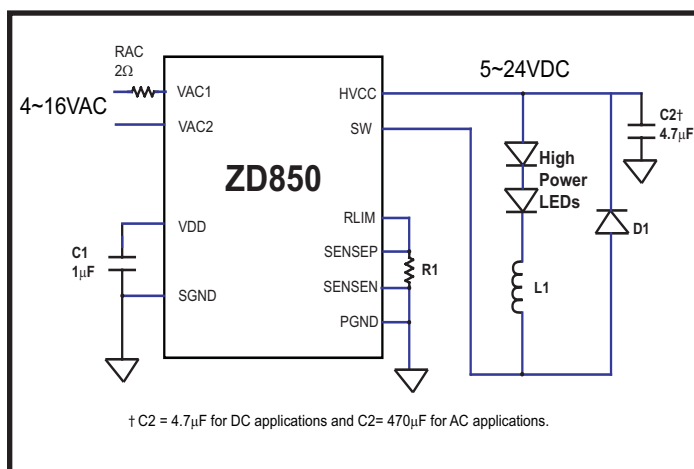


Figure 1. ZD850 driving High Power LEDs up to 1.5A

Specifications subject to change without notice