



XR46051 Product Brief

Two-Step LED Current Controller

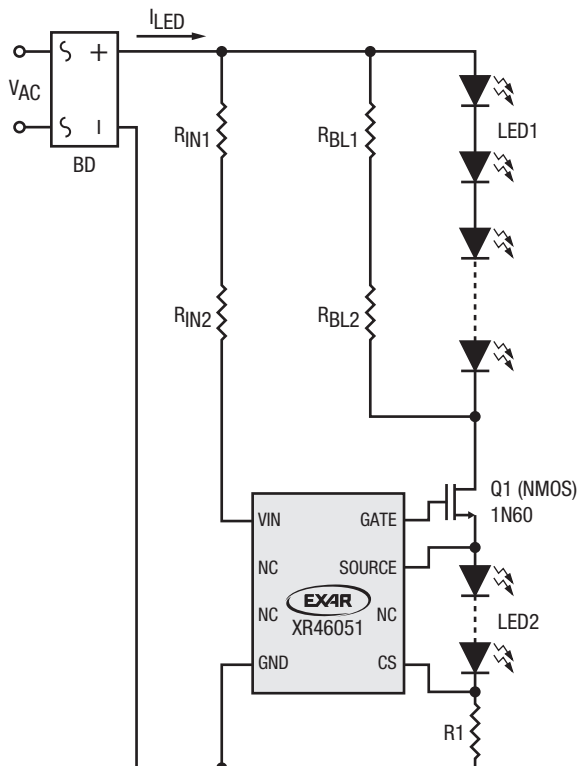
Description

The XR46051 is a two-step LED current controller for bulb application powered by an alternative current (AC) voltage source directly. It can drive an external N-channel power MOSFET to regulate the current flowing through a High Voltage (HV) LED string.

The XR46051 works as a constant current regulator to control two-step current levels for AC step driver with simplest structure. It also provides linear type Over Temperature Protection (OTP).

The PCB design can be very compact to meet various shape requirements. It is especially suitable for replacing A-series LED light bulbs and candelabra LED bulbs.

Typical Application



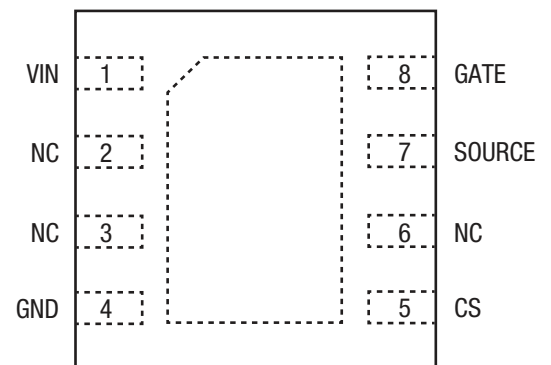
FEATURES

- Device
 - 6V to 78V chip supply voltage range
 - Over temperature protection
 - Single board LED lighting solution available
 - 3mm x 3mm TDFN-8 package
- System
 - All solid state components
 - No electrolytic capacitor required
 - Fewer component counts and simple solution for LED lighting
 - Scalable architecture allows optimization of performance vs. cost
 - Driver-on-board and chip-on-board design solution available which minimize process flow and assembly cost
 - High PF and Low THD performance
 - Flexible PCB layout options

APPLICATIONS

- LED Lighting Applications
 - Downlight
 - High bay
 - Specialty
 - Architectural

Pin Configuration



3mm x 3mm TDFN-8L

Ordering Information⁽¹⁾

| Part Number | Operating Temperature Range | Lead-Free | Package | Packaging Method |
|--------------|-----------------------------|--------------------|-------------|------------------|
| XR46051IHBTR | -40°C to 85°C | Yes ⁽²⁾ | TDFN8 3 x 3 | Tape and reel |

NOTE:

1. Refer to www.exar.com/XR46051 for most up-to-date Ordering Information.
2. Visit www.exar.com for additional information on Environmental Rating.

Please contact LEDtechsupport@exar.com to request a complete datasheet.



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