XR46050 Product Brief

Two-Step LED Current Controller

Description

The XR46050 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 XR46050 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.

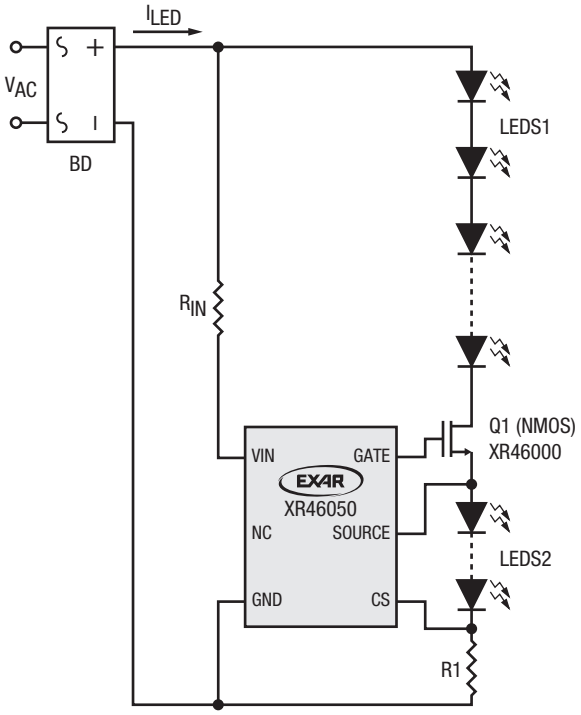
FEATURES

- Device
  - 6V to 76V chip supply voltage range
  - Over temperature protection
  - Single board LED lighting solution available
  - 2mm x 2mm TDFN-6 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

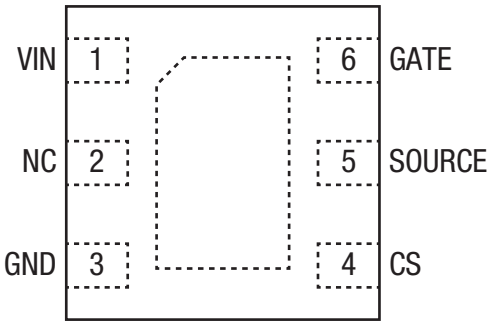
APPLICATIONS

- A series LED bulbs
- Candelabra LED bulbs
- AC LED lighting engines

Typical Application



Pin Configuration



2mm x 2mm TDFN-6

Ordering Information[1]

Part Number	Operating Temperature Range	Lead-Free	Package	Packaging Method
XR46050IHBTR	-40°C to 85°C	Yes[2]	TDFN6 2x2	Tape and reel

NOTE:
1. Refer to www.exar.com/XR46050 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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