XR46203 Product Brief

Two-Step LED Current Controller with Line Regulation Compensation

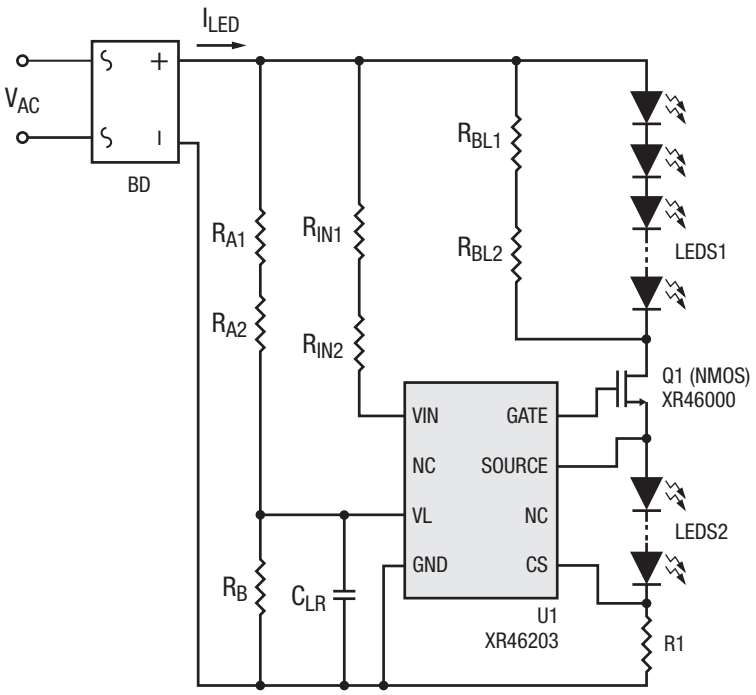
Description

The XR46203 is a two-step LED current controller with line regulation compensation for operating over a wide alternative current (AC) voltage source range. It can drive an external N-channel power MOSFET to regulate the current flowing through a high voltage (HV) LED string.

The XR46203 works as a constant current sink with linear type over voltage protection (OVP), linear type over temperature protection (OTP), and line regulation compensation. It is suitable for applications with a rectified AC voltage source.

The PCB design can be very compact to meet various shape requirements. It is especially suitable for replacing incandescent light bulb and linear type fluorescent lamps.

Typical Application



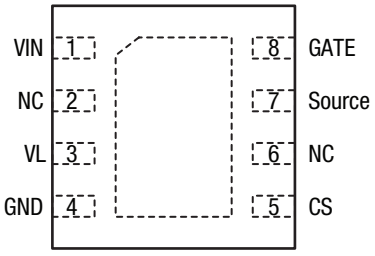
FEATURES

- Device
  - Two current step control from single device
  - Excellent system power regulation over AC line variation range
  - 6V to 78V chip supply voltage range
  - Over temperature protection
  - Over voltage protection
  - 3mm x 3mm DFN-8L package
- System
  - Single board LED lighting solution available
  - All solid state components
  - No electrolytic capacitor or MOV required
  - 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
  - TRIAC dimmable

APPLICATIONS

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

Pin Configuration



3mm x 3mm DFN-8L

Ordering Information[1]

Part Number	Operating Temperature Range	Lead-Free	Package	Packaging Method
XR46203IHBTR	-40°C to 85°C	Yes[2]	DFN8 3mm x 3mm	Tape and reel

NOTE:
1. Refer to www.exar.com/XR46203 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.

www.exar.com

48760 Kato Road
Fremont, CA 94538
USA

Tel.: +1 (510) 668-7000
Fax: +1 (510) 668-7001
Email: LEDtechsupport@exar.com