

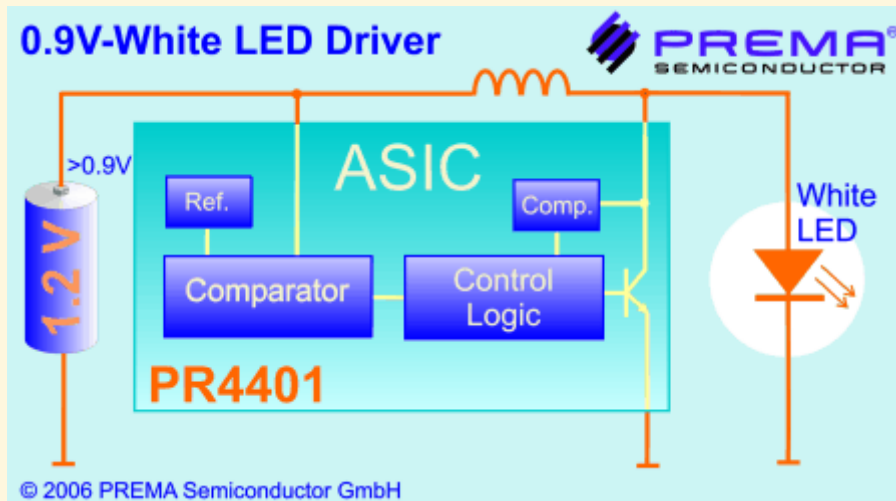
# PR4401

## 0.9V-White LED Driver

### needs only one external component

The core of this driver consists of a step-up converter with current output, which provides an output voltage of typically 3.6 V for white LEDs. The input voltage can be as low as 0.9V, thus allowing a single cell battery operation.

For operation of up three LEDs is only one external component needed, which is an inductor. It is recommended to use an inductor value of 22  $\mu\text{H}$  for a maximum battery lifetime ( more than 55 hours with an AA alkaline battery). With a 10  $\mu\text{H}$  coil higher currents can be reached for maximum brightness of the white LEDs.



The battery current will be reduced to less than 10  $\mu\text{A}$  in case that the supply voltage drops to avoid a deep discharge of the battery.

The PR4401 is available in a compact SOT23-3 package, for size-sensitive applications also chip on board delivery is possible. This LED driver offers a low-cost three-component-solution for example for small LED flash lights or torches.

Further information can be found on PREMA's web site: [www.prema.com](http://www.prema.com)

PREMA Semiconductor GmbH, Robert-Bosch-Str. 6, D-55129 Mainz  
Tel.: +49-6131-5062-0 Fax: +49-6131-5062-220  
[www.prema.com](http://www.prema.com) Email: [prema@prema.com](mailto:prema@prema.com)