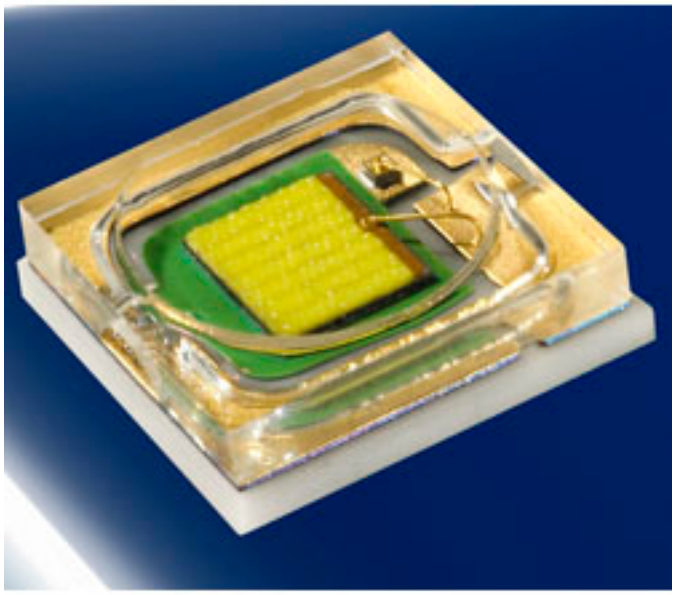
Daytime running light with only two LEDs



The OSTAR Compact LED from OSRAM Opto Semiconductors has been developed specifically for use in vehicle headlights. This high-power LED is designed for Daytime Running Light (DRL) applications based on the use of light guides. Its compact dimensions and its capability to drive high currents make it ideal for both existing and new headlight designs. In addition to the usual point-like LED lighting solutions, linear or two-dimensional designs can be produced with only a small number of semiconductor light sources.

Use of LEDs for daytime running light applications is on the rise – and not only in high-end models. These energy-saving light sources are fast becoming the light source of choice in mid-range vehicles as well. With the surface-mounted OSTAR Compact, OSRAM Opto Semiconductors is further extending its offering of LEDs for DRL applications. The entire automotive LED portfolio of a headlight manufacturer can now be perfectly matched because these high-current LEDs, such as the OSTAR Headlamp and the OSLON ECE, are available in the finely graded color groups that meet ECE / SAE color binning requirements, thereby bringing color harmony to the front of the vehicle.

With a power draw of 5 W and an operating current of 1.4 A, the OSTAR Compact achieves a typical brightness of 300 lm and its 2 mm² chip provides high luminance. With this small, high power light source, light guide systems can be produced with just two LEDs. This robust component also has the optimum heat removal rate of 6 K/W, making it ideal for the high-temperature zones at the front of an automobile. OSTAR Compact does not require a reflector or lens.

“Light guides are available in many different designs, from a simple rod to complex 3D versions,” said Peter Knittl, Marketing Director for the Automotive Division at OSRAM Opto Semiconductors. “To offer new designs in variable forms and an

alternative to point-like DRL designs, you need one thing above all else – a small, high-power light source.”

Thanks to its SMT package, the OSTAR Compact is easy to handle. It will last as long as the vehicle, eliminating the need for replacement, therefore saving on cost. The red and yellow versions of OSTAR Compact can be used for signal lighting.

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