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LED Daytime Running Light for the Audi R8

The Advanced Power TopLED from Osram Opto Semiconductors has graduated to the new sports car with the four rings, the Audi R8. The headlights now feature LEDs with the tiny light sources emphasizing the sleek curves. The LEDs provide high-visibility daytime running light without placing an appreciable load on fuel consumption.

With their impressive performance, 18 lumen at an operating current of 140 mA, the Advanced Power TopLEDs rank between Power TopLEDs and Golden Dragons in terms of their brightness. They achieve this through a combination of ThinGaN technology and chip-level conversion to produce white light. The yellow converter is located directly on the blue chip, which is not the case with the frequently used volume encapsulation method. The result is higher luminance and better optical efficiency.

The introduction of mandatory daytime running light in numerous countries throughout Europe is giving vehicle manufacturers a further opportunity to differentiate their products from those of competitors with unique headlight designs. The Advanced Power TopLED provides concentrated light from very small dimensions and has an edge length of 500 μm . This gives stylists enormous freedom to create imaginative designs. What's more, their high-temperature behavior meets the stringent requirements of the automobile industry for this application.

In the Audi R8 the daytime running light is provided by 12 LED spotlights per headlight. The advantage over using normal low-beam head-



lights for daytime running light is the much lower power consumption. The LEDs are housed in an SMT package and can be further processed by the customer using standard processes. The Advanced Power TopLED will be available on the market with these specifications from mid 2007.

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