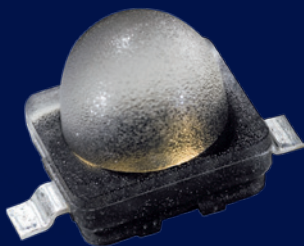




# IR DRAGON® Family

## IR power in a small package

You can only get this much power from IR DRAGON®, OSRAM Opto Semiconductors' strongest infrared emitter. Besides stellar performance in a small package, the IR DRAGON® offers a long service life and high power in continuous driving mode thanks to its excellent thermal design. It operates at wavelengths designed to support CMOS and CCD camera applications.



**OSRAM**  
Opto Semiconductors

## IR DRAGON® Family



IR DRAGON®



Driver Monitoring



Surveillance system

### Advantages

The IR DRAGON® benefits are unique in the infrared galaxy.

### Intergalactic performance

Thinfilm technology allows the IR DRAGON® to achieve a wall-plug efficiency of approx. 35 %. This corresponds to approximately half the value that can be achieved using semiconductor lasers and is superior to using spontaneous emitters.

### A star in reliability

The IR DRAGON® also has an extraordinarily long lifetime in DC mode, showing extremely stable behaviour. Furthermore, the package demonstrates a very good thermal design.

### A galaxy of applications

The wavelength is designed for all CMOS/CCD camera applications. The IR DRAGON® is also qualified for automotive applications.

### Features

Explore the intergalactic features of the IR DRAGON®.

- SMT package:
  - 11.0 x 6.0 x 1.8 mm with holes for precise adjustment of external optics
  - 11.0 x 6.7 x 7.1 mm with integrated lens (+/- 20°)

### Asia

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- The package comes with two wavelengths: 850 nm and 940 nm (strongly reduced red glow)
- It's also available with our new stack technology which means nearly twice the optical output of our standard version
- The IR DRAGON® demonstrates high efficiency in a very small package with an emission area of 1 x 1 mm
- The package is characterized by low thermal resistance and allows a maximum DC current of 1 A
- Naturally, IR DRAGON® is RoHS compliant and qualified for automotive applications

### Applications

The IR DRAGON® is suited for all infrared illumination projects. With this product, you can leap into a new galaxy of applications. The following examples are based on infrared illumination:

#### Automotive

- Pre-crash sensor
- Seat occupancy
- Driver assistance systems

#### Industrial

- Surveillance system (CCTV)
- Machine security systems

#### Consumer

- Night vision flashlights for camera

### Europe

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### Technical data

Max. forward current (DC mode): 1 A  
Thermal resistance: 9 K/W  
Active chip area: 1 mm<sup>2</sup>

#### SFH 4232

Total radiant flux (@ I<sub>f</sub> = 1 A): 530 mW  
Total power consumption: 1.8 W  
Wavelength: 850 nm

#### SFH 4233

Total radiant flux (@ I<sub>f</sub> = 1 A): 500 mW  
Total power consumption: 1.8 W  
Wavelength: 940 nm

#### SFH 4235

Total radiant flux (@ I<sub>f</sub> = 1 A): 950 mW  
Total power consumption: 3.4 W  
Wavelength: 850 nm

#### SFH 4236 (+/- 20°)

Radiant intensity (@ I<sub>f</sub> = 1 A): 630 mW/sr  
Total power consumption: 1.8 W  
Wavelength: 850 nm

#### SFH 4239 (+/- 20°)

Radiant intensity (@ I<sub>f</sub> = 1 A): 550 mW/sr  
Total power consumption: 1.8 W  
Wavelength: 940 nm

### IR DRAGON® on the Internet:

[www.osram-os.com/ir-dragon](http://www.osram-os.com/ir-dragon)

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