

# EPIGAP Optronik GmbH

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## Data Sheet

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### High Power LED

### EOLS-590-227

Rev. 04, 2018

Radiation	Type	Case
Yellow	AllnGaP/GaAs	SMD 6046 (2418), ceramics

<p style="text-align: center;">All dimensions in mm</p>	<p style="text-align: center;"><b>Description:</b></p> <ul style="list-style-type: none"> <li>- size: 6.0(L) x 4.6(W) x 4.3(H) mm</li> <li>- high pulse current up to 1000 mA</li> <li>- with lens, view angle 20°</li> <li>- soldering pads: gold plated; only for reflow soldering</li> <li>- marking at anode</li> </ul>
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### Maximum Ratings

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current		I <sub>F</sub>	700	mA
Peak forward current	t <sub>p</sub> ≤ 100 μs, τ=1:10	I <sub>FM</sub>	1000	mA
Reverse voltage		V <sub>R</sub>	5	V
Thermal resistance		R <sub>th_JA</sub>	5	K/W
Operating temperature range		T <sub>amb</sub>	-40 to +85	°C
Storage temperature range		T <sub>stg</sub>	-40 to +85	°C

Electrostatic discharge classification (MIL-STD-883) - class 1

### Optical and Electrical Characteristics

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Symbol	Conditions	Min	typ	max	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 350 mA		2.15	3.0	V
Radiant power*	Φ <sub>e</sub>	I <sub>F</sub> = 350 mA		42		mW
Radiant intensity*	I <sub>e</sub>	I <sub>F</sub> = 350 mA		200		mW/sr
Peak wavelength	λ <sub>p</sub>	I <sub>F</sub> = 350 mA	582	590	598	nm
FWHM	Δλ <sub>0,5</sub>	I <sub>F</sub> = 350 mA		15		nm
Reverse current	I <sub>R</sub>	I <sub>R</sub> = 5 V			100	μA

\*measured on star board



We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

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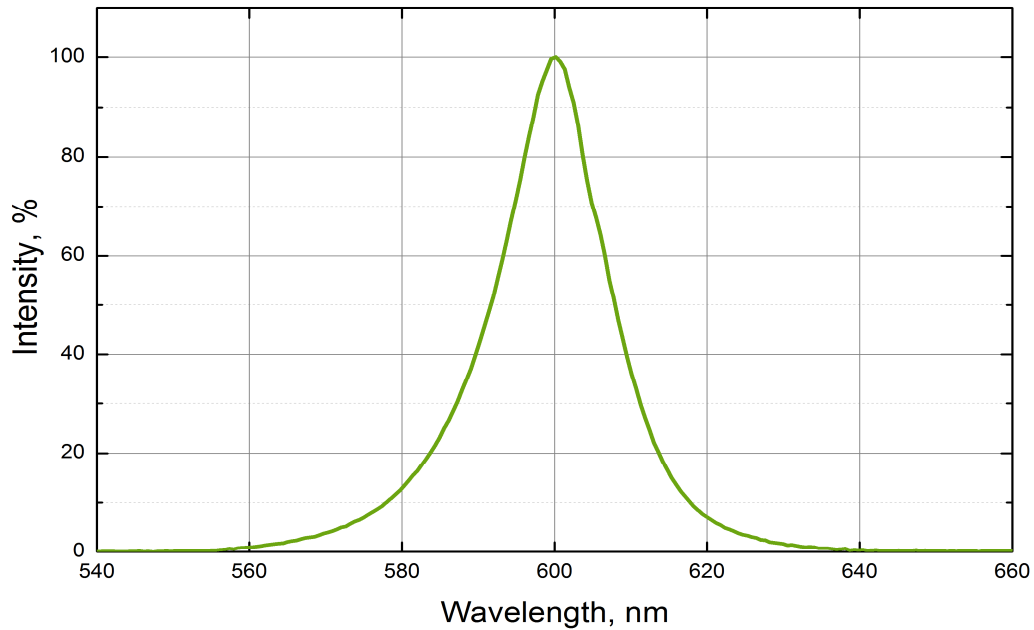


## Data Sheet

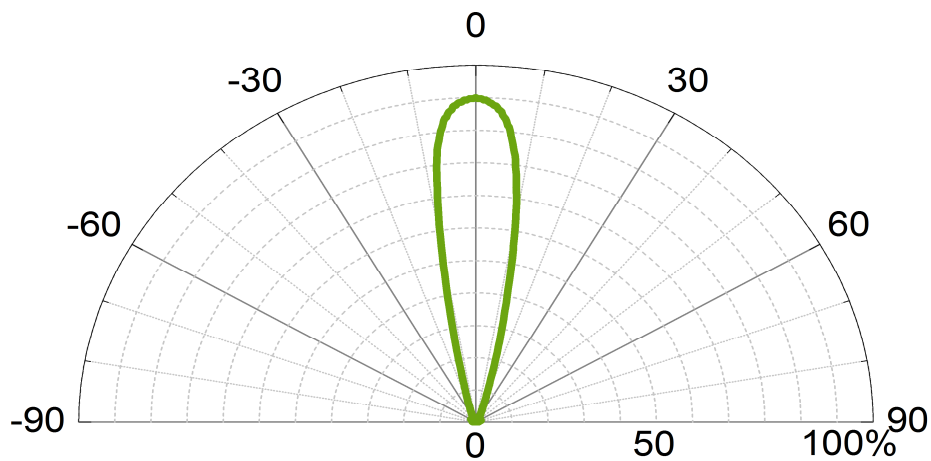
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Typical radiation spectrum at 350 mA



Radiation pattern

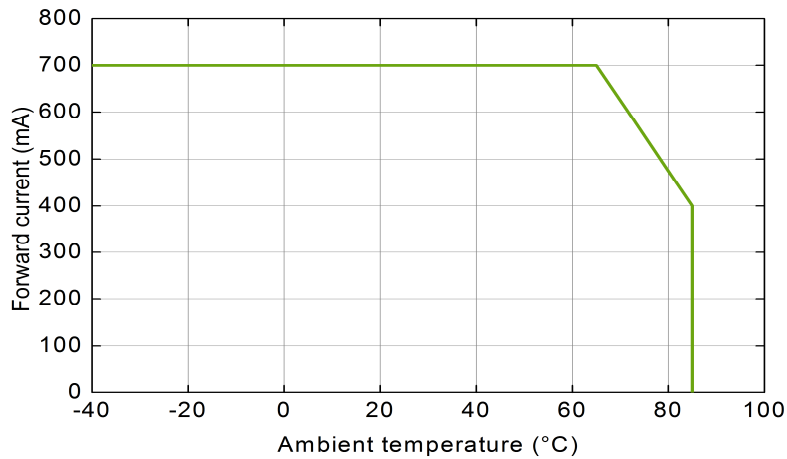


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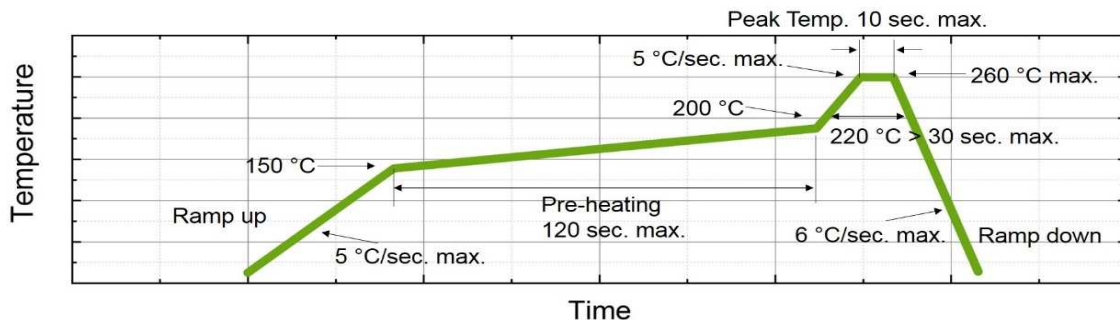
**Data Sheet**

**High Power LED**

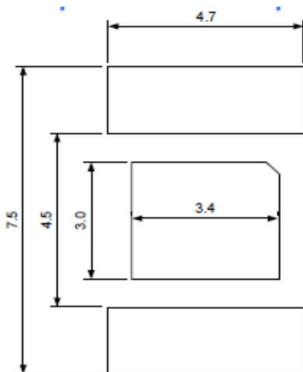
**EOLS-590-227**



**Max. forward current vs. ambient temperature**



**Recommended reflow soldering profile**



**Recommended soldering pad**

Thermal pad needs to be connected to a heat sink with less than 10 K/W thermal resistance.

Art. No. 133 165



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