EPIGAP Optronic GmbH
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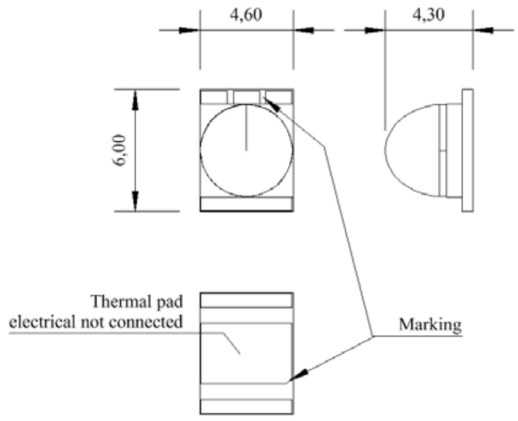
Data Sheet

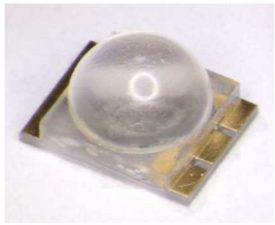
High Power LED — EOLS-460-227

Rev. 05, 2020

Radiation	Type	Case
Blue	InGaN	SMD 6046 (2418), ceramics



All dimensions in mm



Description:

- size: 6.0(L) x 4.6(W) x 4.3(H) mm
- high pulse current up to 1000 mA
- with lens, view angle 20°
- soldering pads: gold plated; only for reflow soldering
- marking at anode

Maximum Ratings

T_{amb}= 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current		I_F	700	mA
Peak forward current	$t_p \leq 100$ µs, τ=1:10	I_{FM}	1000	mA
Reverse voltage		V_R	5	V
Thermal resistance		R_{th_JA}	5	K/W
Operating temperature range		T_{amb}	-40 to +85	°C
Storage temperature range		T_{stg}	-40 to +85	°C

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

Optical and Electrical Characteristics

T_{amb}= 25°C, unless otherwise specified

Parameter	Symbol	Conditions	Min	typ	max	Unit
Forward voltage	V_F	I_F= 350 mA		3.1	3.4	V
Radiant power*	Φ_e	I_F= 350 mA		310		mW
Radiant intensity*	I_e	I_F= 350 mA		915		mW/sr
Peak wavelength	λ_p	I_F= 350 mA	455	460	465	nm
FWHM	$\Delta\lambda_{0,5}$	I_F= 350 mA		22		nm
Reverse current	I_R	I_R= 5 V			100	µA

*measured on star board

RoHS COMPLIANT Pb-Free

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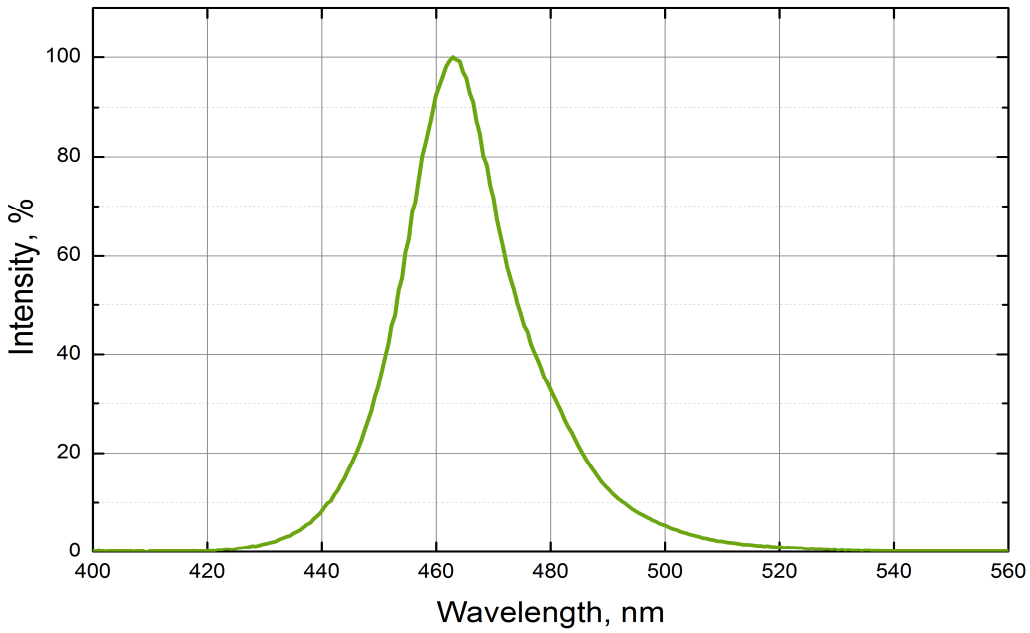
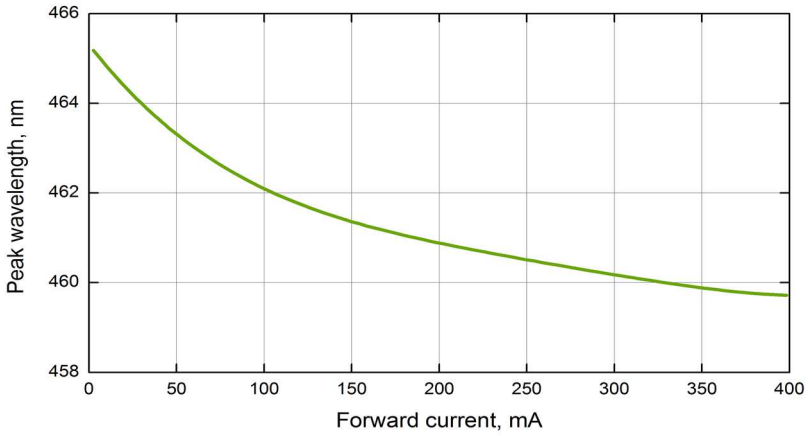


Typical radiation spectrum at 350 mA



Peak wavelength vs. forward current

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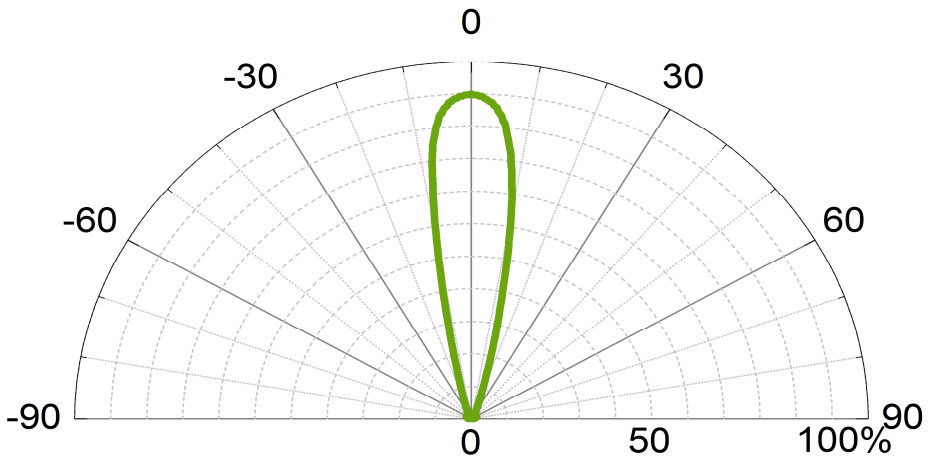
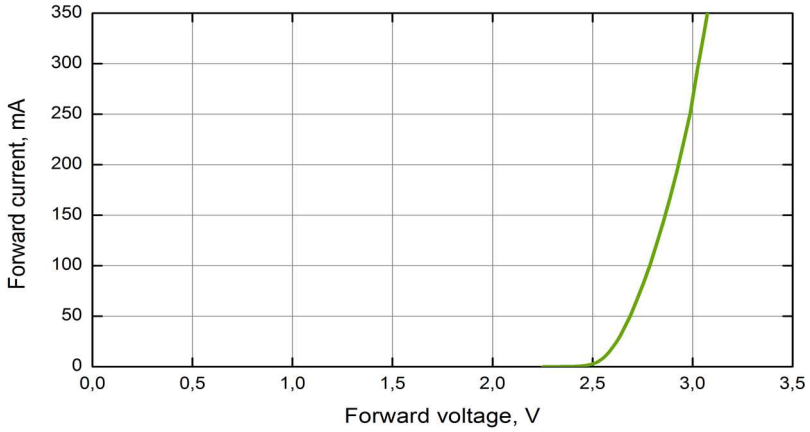
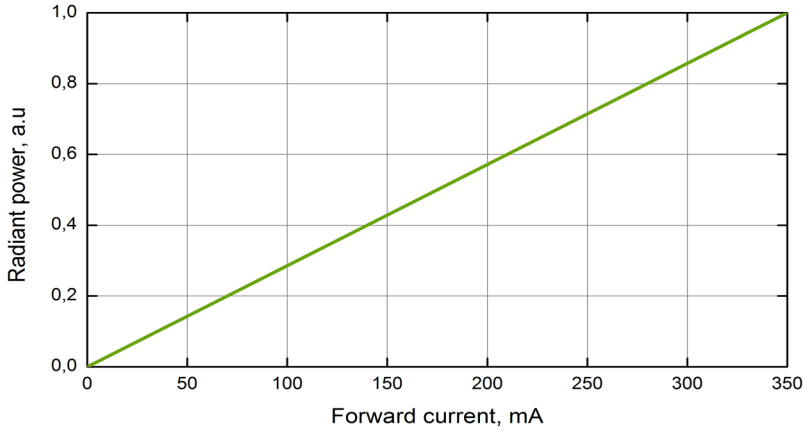


Radiation pattern





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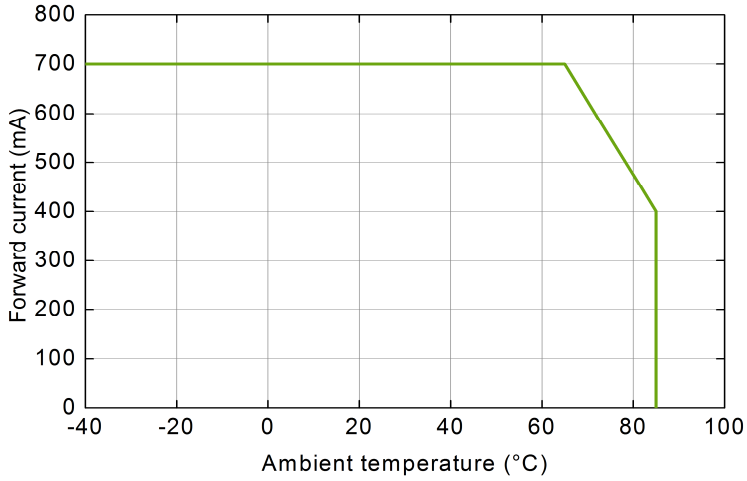
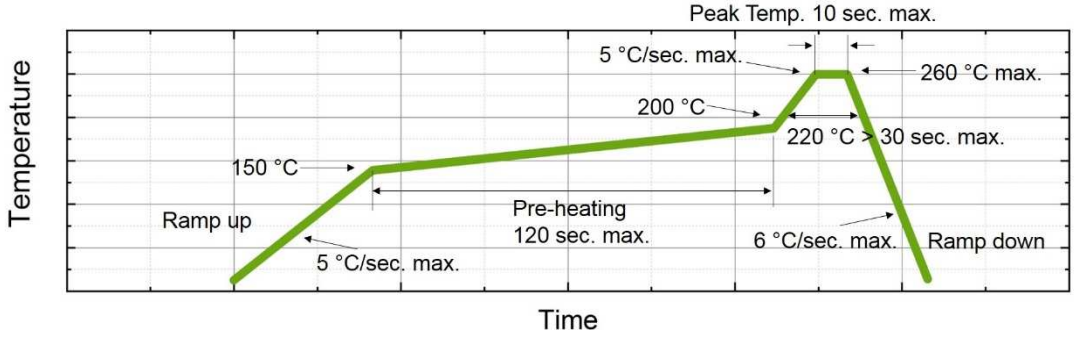
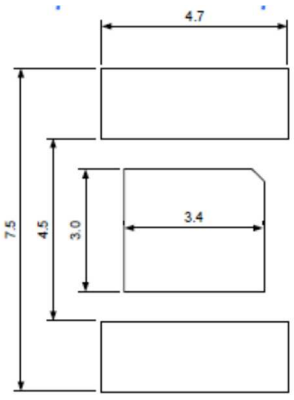




Recommended reflow soldering profile



Recommended soldering pad

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

Art. No. 133 159

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