

EPIGAP Optronic GmbH

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Data Sheet

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SMD LED

EOLS-405-496

Rev. 08, 2019

Radiation	Type	Case
violet, UV	InAlGaN	SMD 3838 (1515)

Unit: mm
Tolerance: $\pm 0,1$

Back side

The picture shown is for illustration purpose only.
Actual product may vary due to product enhancement.

Description:

- Size 3.8 (W) x 3.8 (L) x 1.0 (H) mm
- Circuit substrate: AlN ceramics
- Marking at cathode
- Lead free solderable, soldering pads: silver plated
- Distance from bottom of SMD to chip top surface: $450 \pm 70 \mu\text{m}$

Maximum Ratings

$T_{\text{amb}} = 25^\circ\text{C}$, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current		I_F	350	mA
Peak forward current	$t_p \leq 80 \text{ ms}, T=1 \text{ s}$	I_{FM}	1000	mA
Operating temperature range		T_{amb}	-40 to +85	$^\circ\text{C}$
Storage temperature range		T_{stg}	-40 to +85	$^\circ\text{C}$

Optical and Electrical Characteristics

$T_{\text{amb}} = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Min	typ	max	Unit
Forward voltage	V_F	$I_F = 350 \text{ mA}$		3.3	3.6	V
Forward voltage	V_F	$I_F = 700 \text{ mA}$		3.8		V
Forward voltage	V_F	$I_F = 1000 \text{ mA}$			4.0	V
Radiant power*	Φ_e	$I_F = 1000 \text{ mA}$	1150			mW
Peak wavelength	λ_p	$I_F = 350 \text{ mA}$	400	405	410	nm
Central wavelength	λ_C	$I_F = 350 \text{ mA}$	400	405	408	nm
FWHM	$\Delta\lambda_{0,5}$	$I_F = 350 \text{ mA}$		19	25	nm

* $d\Phi_e / dI_F > 0$ at $I_F = 0 \dots I_{FM}$. LEDs should never be operated with reverse bias!



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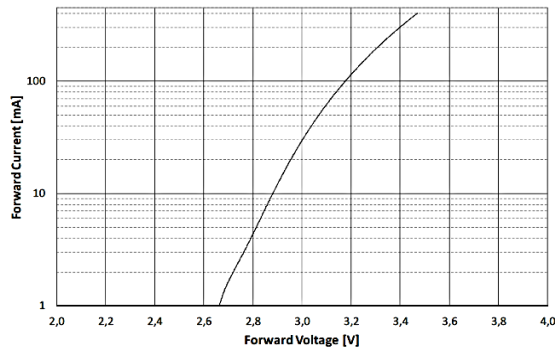


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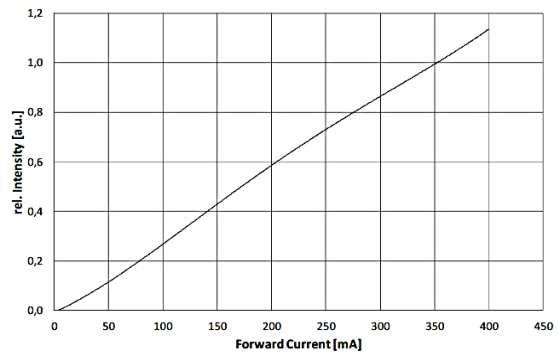
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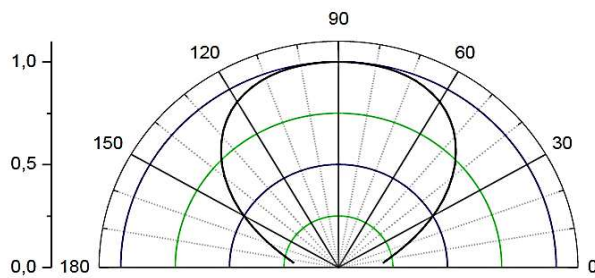
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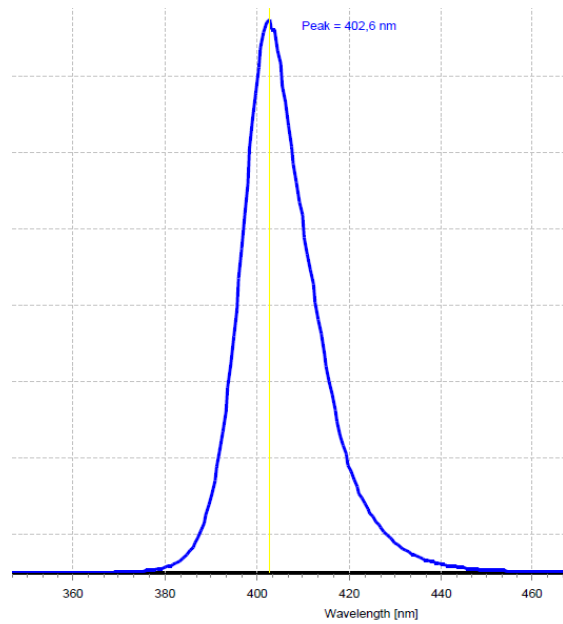
Forward Current vs. Forward Voltage



Intensity vs. Forward Current



View Angle



Typical spectrum at 350 mA



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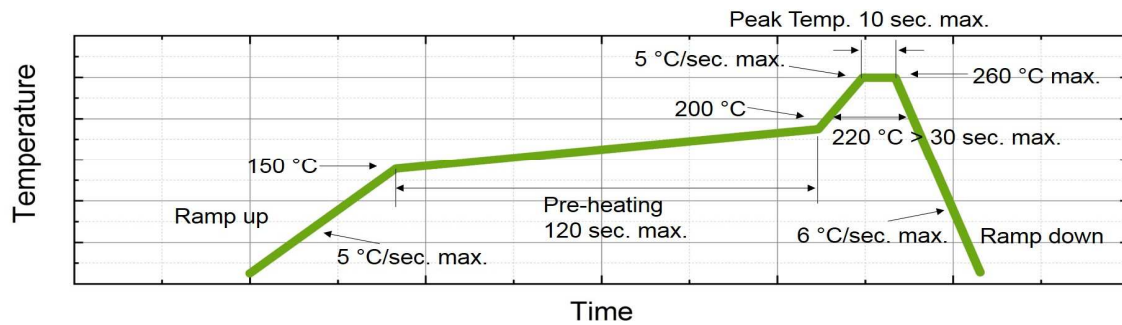
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Recommended reflow soldering profile

Art. No. 133 110

