

# EPIGAP Optronik GmbH

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## Data Sheet

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### High Power SMD LED

### EOLS-800-227

Rev. 02, 2017

Radiation	Type	Case
Infrared	AlGaAs	SMD 6046 (2418), ceramics

Thermal pad electrical not connected

Marking

**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 cathode

### Maximum Ratings

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

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

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

### Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	typ	max	Unit
Forward voltage	$V_F$	$I_F = 350 \text{ mA}$		1.55	2.1	V
Radiant power*	$\Phi_e$	$I_F = 350 \text{ mA}$		38		mW
Radiant intensity*	$I_e$	$I_F = 350 \text{ mA}$		120		mW/sr
Peak wavelength	$\lambda_p$	$I_F = 350 \text{ mA}$	790	800	810	nm
FWHM	$\Delta\lambda_{0,5}$	$I_F = 350 \text{ mA}$		35		nm
Reverse current	$I_R$	$I_R = 5 \text{ V}$			100	$\mu\text{A}$

\*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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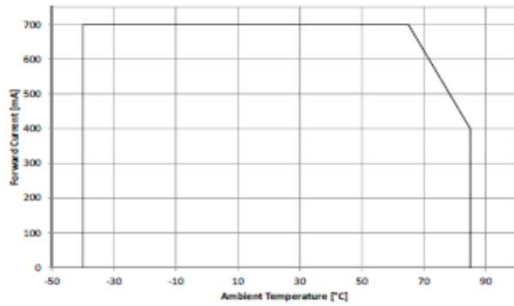


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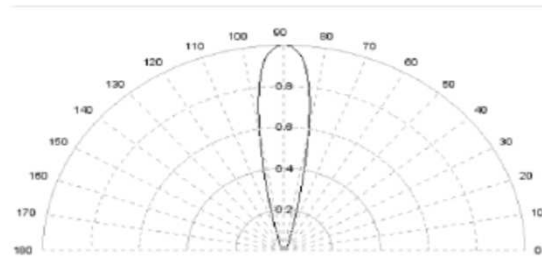
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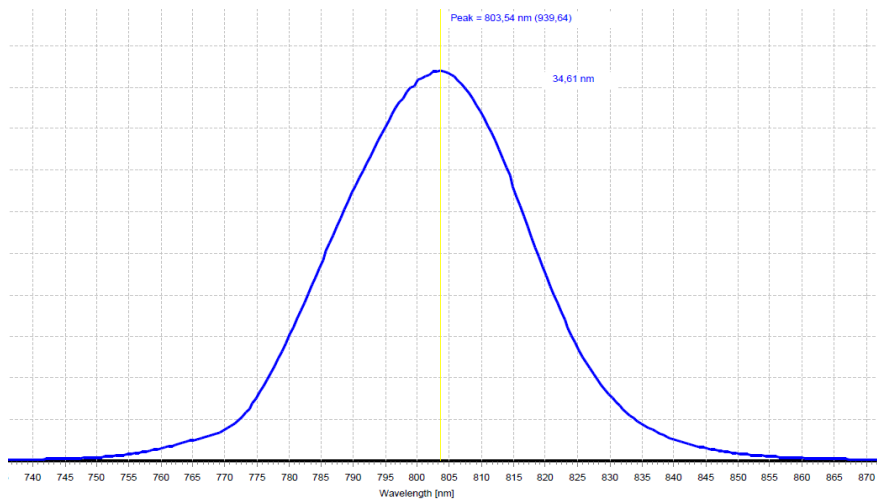
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Max. Forward Current vs. Ambient Temperature  
Max. Flussstrom über Umgebungstemperatur



View Angle  
Abstrahlung



Typical radiation spectrum at 350 mA



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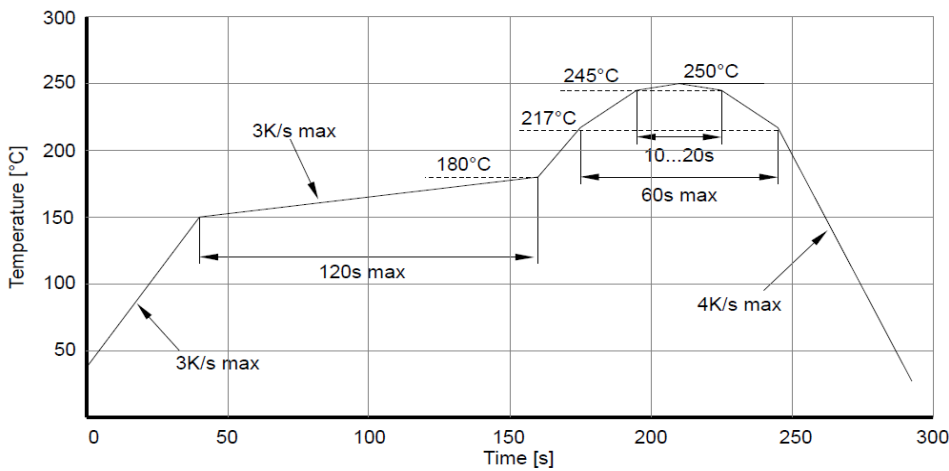
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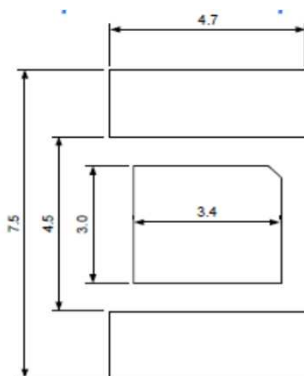
### EOLS-800-227

Rev. 02, 2017



IR reflow soldering  
profile for lead free  
soldering

IR Reflow  
Lötprozess für  
bleifreies Lot



Recommended soldering pad

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

Art. No. 133 175



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