

# EPIGAP Optronik GmbH

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## Data Sheet

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### SMD-LED

### EOLS-1300-199

Rev. 03, 2017

| Radiation | Type    | Case            |
|-----------|---------|-----------------|
| infrared  | InGaAsP | SMD 3216 (1206) |

|  |   |
|--|---|
| <p style="text-align: right;">Unit: mm<br/>Tolerance: ±0,1</p> | <p style="text-align: center;"><b>Description:</b></p> <ul style="list-style-type: none"> <li>- Size 1206: 3.2 (L) x 1.6 (W) x 1.2 (H) mm</li> <li>- Circuit substrate: glass laminated epoxy</li> <li>- Devices are RoHS conform</li> <li>- Lead free solderable, soldering pads: gold plated</li> <li>- Marking at cathode</li> <li>- High radiation intensity</li> </ul> |
|--|---|

### Maximum Ratings

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

| Parameter                   | Test conditions                            | Symbol     | Value      | Unit               |
|-----------------------------|--|------------|------------|--------------------|
| Forward current             |  | $I_F$      | 50         | mA                 |
| Peak forward current        | $t \leq 100 \mu\text{s}, T = 1 \text{ ms}$ | $I_{FM}$   | 100        | mA                 |
| Reverse voltage             | $I_R = 100 \mu\text{A}$                    | $I_{RM}$   | 5          | V                  |
| Operating temperature range |  | $T_{amb}$  | -40 to +85 | $^{\circ}\text{C}$ |
| Storage temperature range   |  | $T_{stg}$  | -55 to +85 | $^{\circ}\text{C}$ |
| Thermal resistance          |  | $R_{thJA}$ | 450        | K/W                |

### Optical and Electrical Characteristics

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

| Parameter       | Symbol                | Conditions            | Min  | Typ  | Max  | Unit |
|-----------------|-----------------------|-----------------------|------|------|------|------|
| Forward voltage | $V_F$                 | $I_F = 50 \text{ mA}$ |      | 1.0  | 1.3  | V    |
| Radiant power   | $\Phi_e$              | $I_F = 50 \text{ mA}$ |      | 5    |      | mW   |
| Peak wavelength | $\lambda_p$           | $I_F = 50 \text{ mA}$ | 1250 | 1300 | 1350 | nm   |
| FWHM            | $\Delta\lambda_{0,5}$ | $I_F = 50 \text{ mA}$ |      | 90   |      | nm   |
| Viewing angle   | $\varphi$             | $I_F = 50 \text{ mA}$ |      | 120  |      | deg. |

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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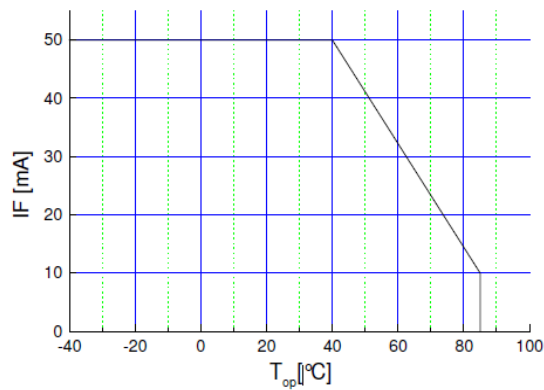
## Data Sheet

**SMD-LED**

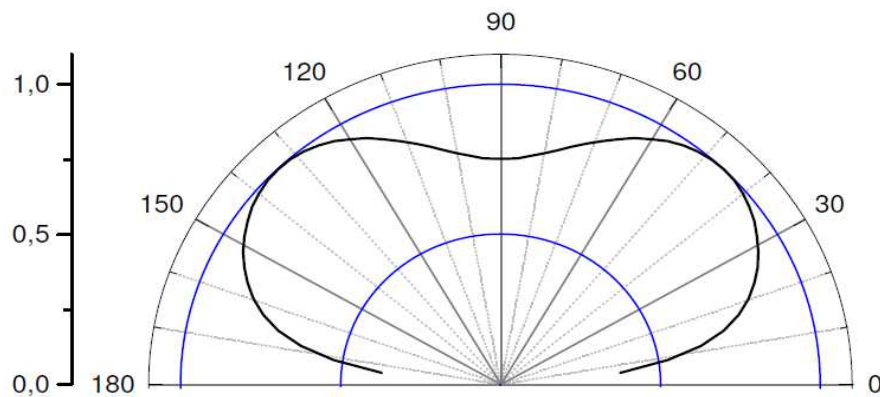
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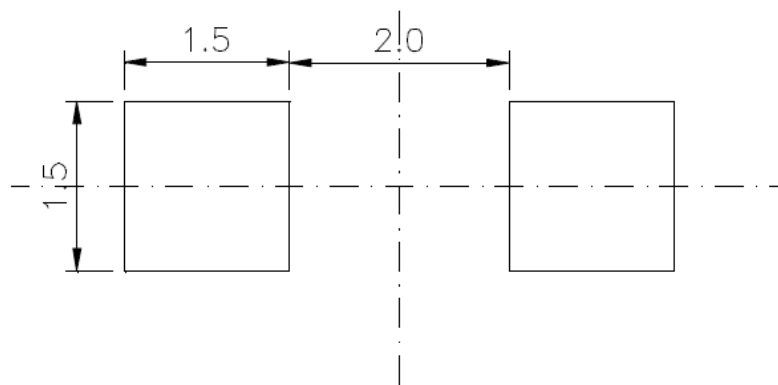
**Maximal forward current (DC) characteristic**



**Radiation pattern**



**Recommended Soldering Pattern**



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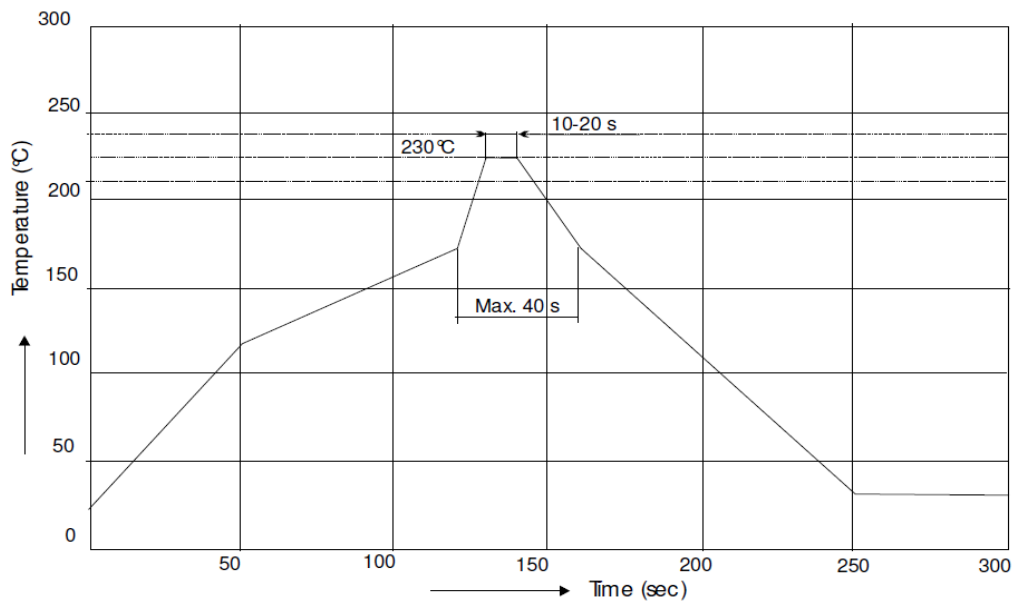
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### SMD-LED

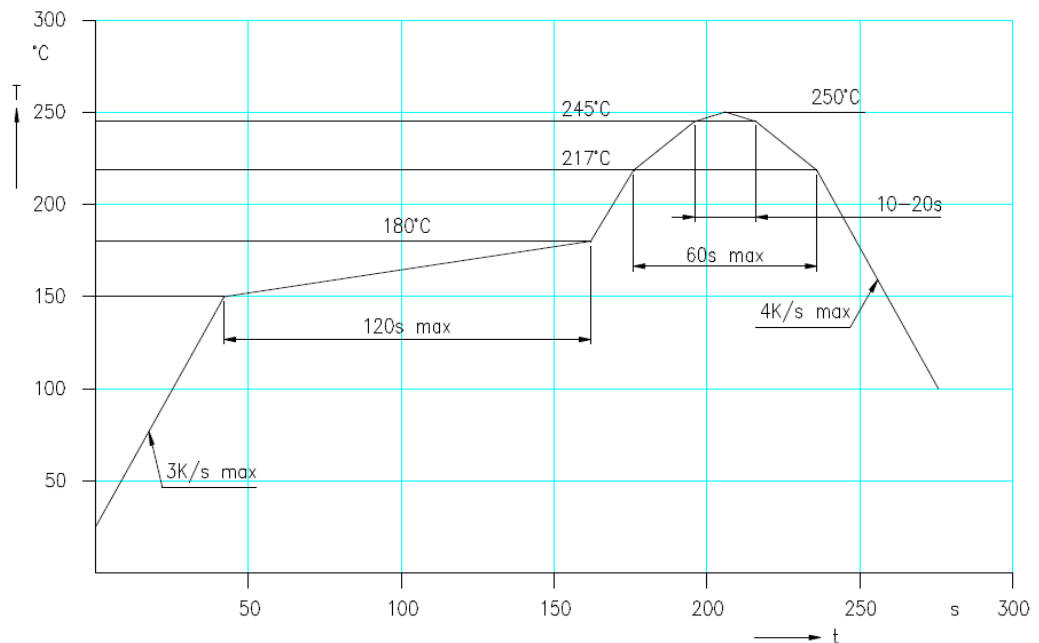
### EOLS-1300-199

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#### IR reflow soldering profile



#### IR reflow soldering profile for lead free soldering



#### Manual soldering:

max power of iron 25 W / 3 s / 300°C

Art. Nr. 133 129



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