

# EPIGAP Optronik GmbH

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## Data Sheet

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### Infrared SMD-LED

### EOLS-1650-843

Rev. 03, 2017

Radiation	Type	Case
infrared	InGaAsP	SMD 3216 (1206)

Unit: mm

**Description:**

- Size 1206: 3.2 (L) x 1.6 (W) x 1.95 (H) mm
- Circuit substrate: glass laminated epoxy
- Devices are RoHS conform
- Lead free solderable, soldering pads: gold plated
- Marking at cathode

### Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Peak forward current	$t_p \leq 100 \mu\text{s} \tau = 1:10$	$I_{FP}$	100	mA
Continuous forward current		$I_F$	50	mA
Reverse voltage		$V_R$	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
Reverse current	$I_R$	$V_R = 5 \text{ V}$			100	$\mu\text{A}$
Radiant power	$\Phi_e$	$I_F = 50 \text{ mA}$		1.7		mW
Peak wavelength	$\lambda_p$	$I_F = 50 \text{ mA}$	1600	1650	1700	nm
Spectral bandwidth	$\Delta\lambda_{0.5}$	$I_F = 50 \text{ mA}$		130		nm
Viewing angle	$\varphi$	$I_F = 50 \text{ mA}$		40		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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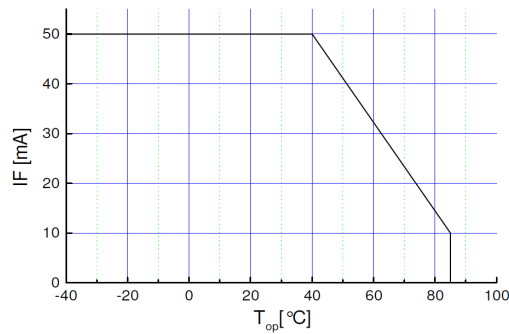
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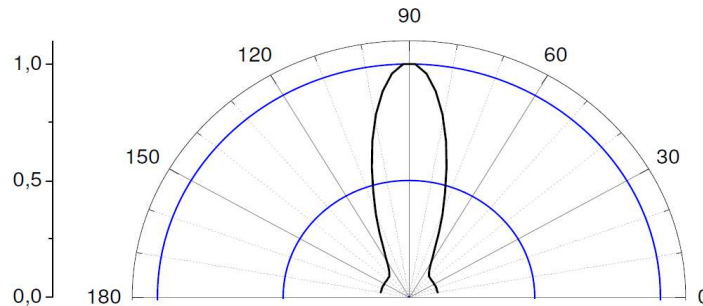
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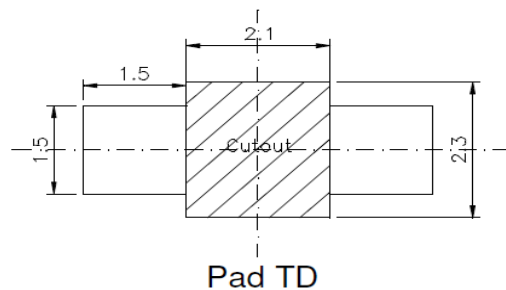
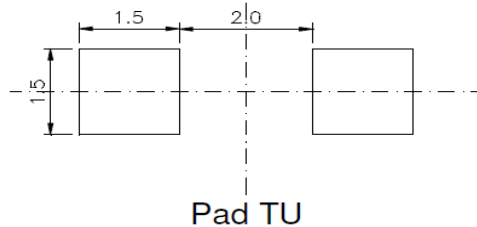
#### Maximal forward current (DC) characteristic



#### Radiation pattern



#### Recommended Soldering Patterns



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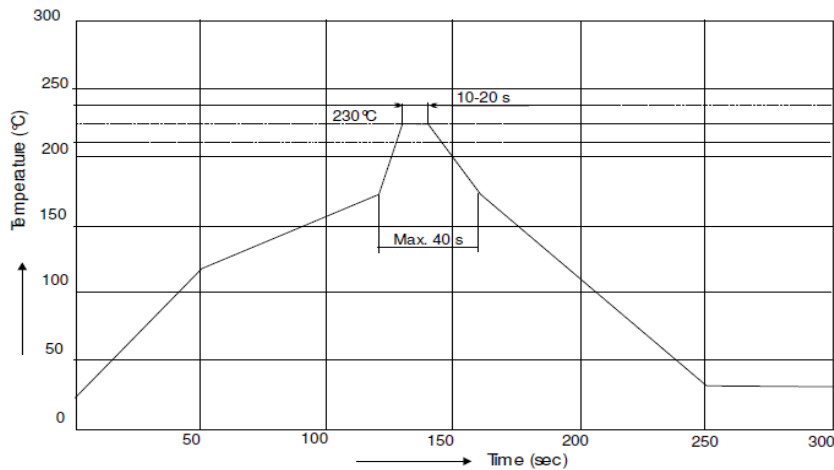
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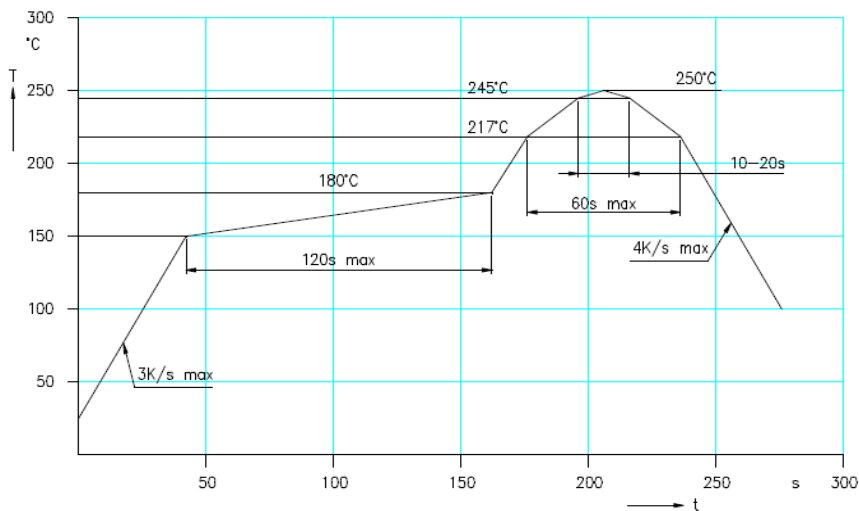
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#### IR reflow soldering profile



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



**Manual soldering:**  
max power of iron 25 W / 3 s / 300°C

Art. No. 133 137



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