

EPIGAP Optronik GmbH

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Data Sheet

page 1 of 3

SMD-LED

EOLS-970-195

Rev. 04, 2017

Radiation	Type	Case
infrared	GaAs	SMD 3216 (1206)

<p>Unit: mm Tolerance: ±0,1</p>	<p style="text-align: center;">Description:</p> <ul style="list-style-type: none"> - Size 1206: 3.2 (L) x 1.6 (W) x 1.2 (H) mm - Circuit substrate: glass laminated epoxy - Devices are RoHS conform - Lead free solderable, soldering pads: gold plated - Marking at anode - High radiation intensity
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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}	200	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}	-40 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	$I_F = 50 \text{ mA}$		1.3	1.45	V
Radiant power	Φ_e	$I_F = 50 \text{ mA}$	2.1			mW
Radiant intensity	I_e	$I_F = 50 \text{ mA}$	0.7	1.4		mW/sr
Peak wavelength	λ_p	$I_F = 50 \text{ mA}$	955	970	985	nm
FWHM	$\Delta\lambda_{0,5}$	$I_F = 50 \text{ mA}$		40		nm
Viewing angle	φ	$I_F = 50 \text{ mA}$		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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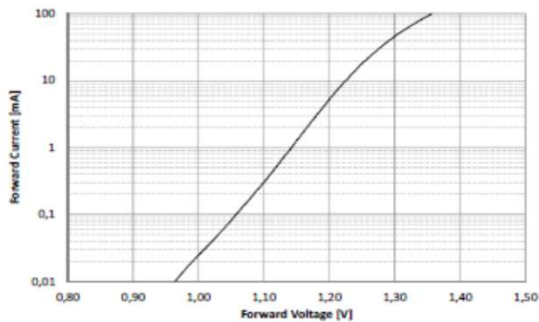


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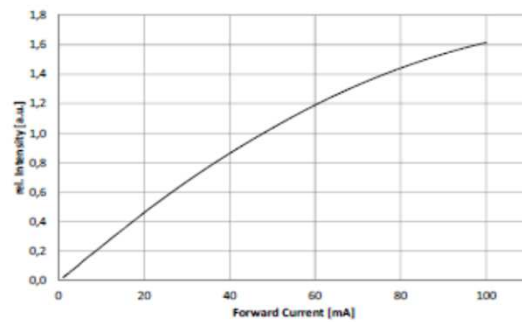
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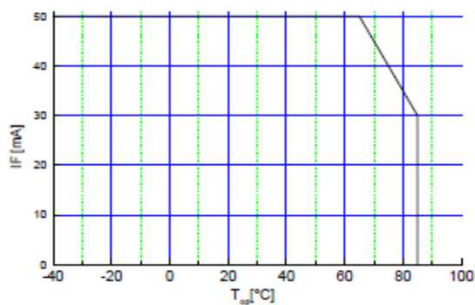
page 2 of 3
Rev. 04, 2017



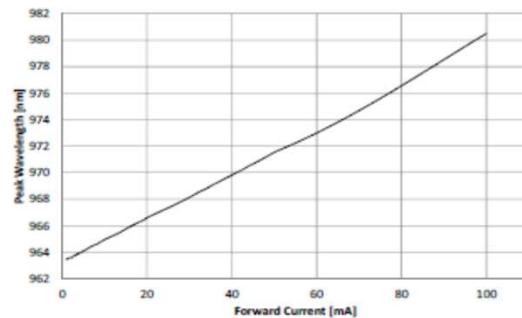
Forward Current vs. Forward Voltage
Flussstrom über Flussspannung



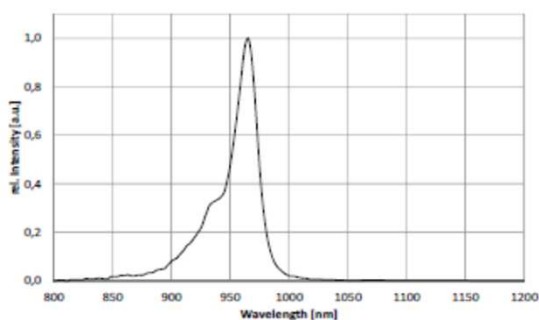
Intensity vs. Forward Current
Strahlstärke über Flussstrom



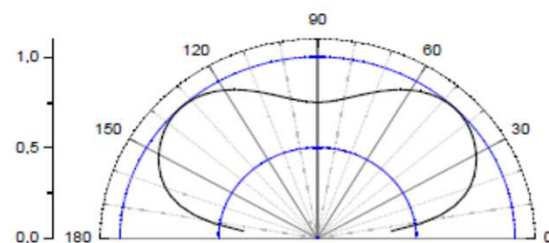
Max. Forward Current vs. Ambient Temperature
Max. Flussstrom über Umgebungstemperatur



Forward Current vs. Shift Peak Wavelength
Flussstrom gegen Verschiebung der Wellenlänge



Spectrum @ 50mA
Spektrum



View Angle
Abstrahlung



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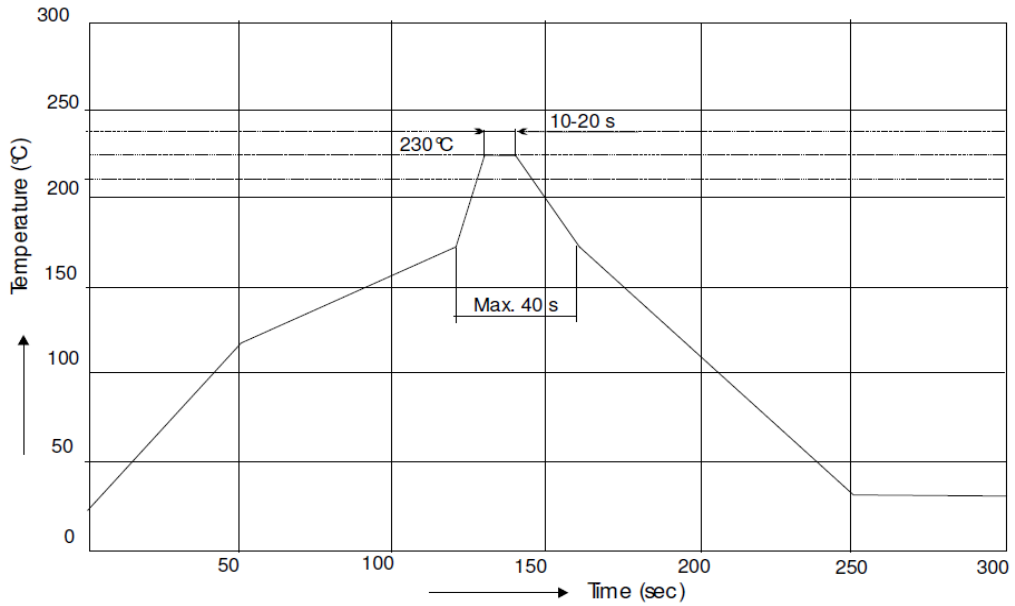
Data Sheet

page 3 of 3
Rev. 04, 2017

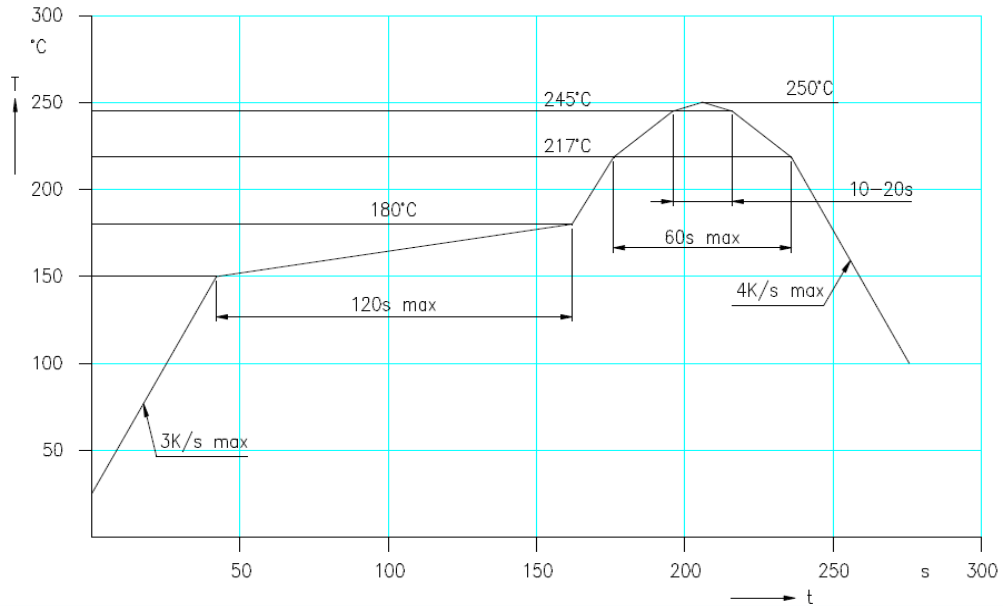
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IR reflow soldering profile



IR reflow soldering profile for lead free soldering



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

Art. No. 133 014



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