

# EPIGAP Optronik GmbH

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## Data sheet

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### Infrared LED

### EOLD-880-015-1

Rev. 03, 2017

Radiation	Type	Case
infrared	AlGaAs	TO-46 with glass lens cap

Description:	
	<p>High power, high-speed, narrow beam angle, high reliability</p> <p>Applications: optical communication, safety equipment, automation</p> <p>All dimensions in mm</p>

### Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward current		$I_F$	100	mA
Peak forward current	$t_p \leq 100 \mu\text{s}$ , $D=0,1$	$I_{FM}$	400	mA
Power dissipation		$P_D$	200	mW
Operating temperature range		$T_{amb}$	-30 to +100	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-40 to +125	$^{\circ}\text{C}$
Lead soldering temperature	< 5 s, 3 mm from case	$T_{slg}$	260	$^{\circ}\text{C}$
Junction temperature		$T_J$	125	$^{\circ}\text{C}$

### Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 20 \text{ mA}$		1.4	1.8	V
Forward voltage*	$V_F$	$I_F = 50 \text{ mA}$		1.5		V
Reverse voltage	$V_R$	$I_R = 10 \mu\text{A}$	5			V
Radiant power	$\Phi_e$	$I_F = 20 \text{ mA}$	1.4	1.8		mW
Radiant power*	$\Phi_e$	$I_F = 50 \text{ mA}$		4.5		mW
Radiant intensity	$I_e$	$I_F = 20 \text{ mA}$	25	40		mW/sr
Radiant intensity*	$I_e$	$I_F = 50 \text{ mA}$		100		mW/sr
Peak wavelength	$\lambda_p$	$I_F = 20 \text{ mA}$	865	880	895	nm
FWHM	$\Delta\lambda_{0,5}$	$I_F = 20 \text{ mA}$		45		nm
Viewing angle	$\varphi$	$I_F = 20 \text{ mA}$		6		deg.
Switching time	$t_r, t_f$	$I_F = 20 \text{ mA}$		25		ns

\*for information only



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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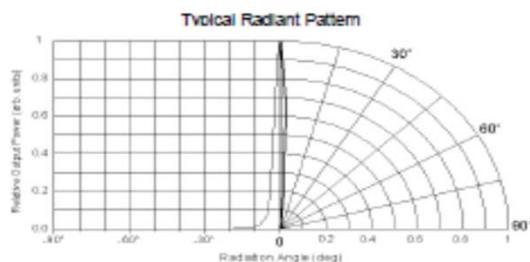
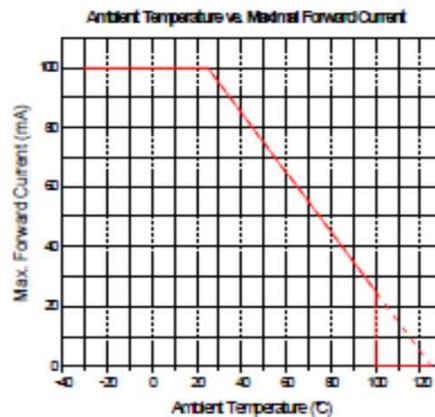
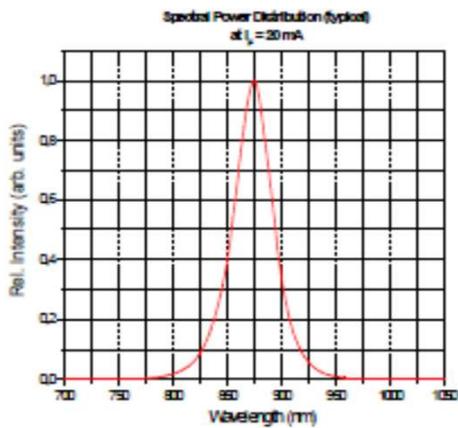
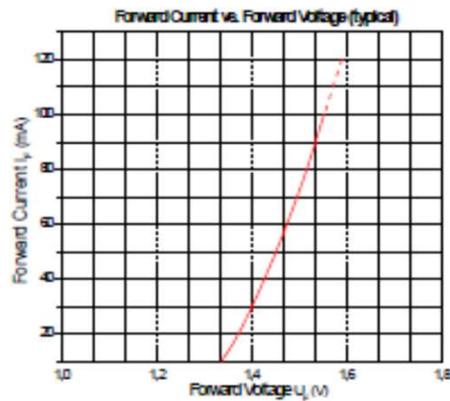
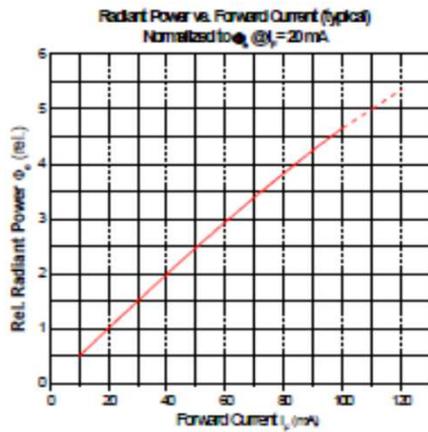


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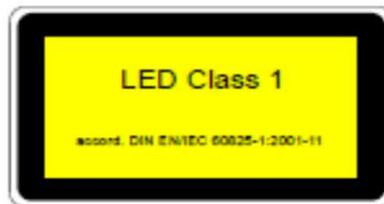
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#### Remarks concerning optical radiation safety\*

Up to maximum forward current, at continuous operation, this LED may be classified as LED product *Class 1*, according to standard IEC 60825-1:A2. *Class 1* products are safe to eyes and skin under reasonably predictable conditions. This implicates a direct o

\*Note: Safety classification of an optical component mainly depends on the intended application and the way the component is being used. Furthermore, all statements made to classification are based on calculations and are only valid for this LED "as it is"



Art. No. 134 005



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