

# EPIGAP Optronik GmbH

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## Data sheet

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### Infrared LED

### EOLD-810-095-4

Rev. 05, 2017

Radiation	Type	Case
infrared	AlGaAs/AlGaAs, DDH	TO-46

Description:	
	<p>High power, high-speed, infrared LED in hermetically sealed TO-46 package, mounted on reflector header for beamforming</p> <p>Applications: optical communication, safety equipment, encoders</p>

All dimensions in mm

### Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward current (DC)		$I_F$	100	mA
Peak forward current	$t_p \leq 50 \mu\text{s}$ , $t_p/T=1/2$	$I_{FM}$	200	mA
Power dissipation		$P_D$	210	mW
Operating temperature range		$T_{amb}$	-40 to +105	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-55 to +105	$^{\circ}\text{C}$
Lead soldering temperature	< 5 s, 3 mm from case	$T_{slg}$	260	$^{\circ}\text{C}$
Junction temperature		$T_J$	100	$^{\circ}\text{C}$

### Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 20 \text{ mA}$		1.6	1.9	V
Forward voltage*	$V_F$	$I_F = 100 \text{ mA}$		1.7	2.1	V
Reverse voltage	$V_R$	$I_R = 10 \mu\text{A}$	5			V
Radiant power	$\Phi_e$	$I_F = 20 \text{ mA}$	1.8	2.2		mW
Radiant power*	$\Phi_e$	$I_F = 100 \text{ mA}$		10		mW
Radiant intensity	$I_e$	$I_F = 100 \text{ mA}$		8		mW/sr
Peak wavelength	$\lambda_p$	$I_F = 20 \text{ mA}$	800	810	820	nm
FWHM	$\Delta\lambda_{0.5}$	$I_F = 20 \text{ mA}$		35		nm
Viewing angle	$\varphi$	$I_F = 20 \text{ mA}$		90		deg.
Switching time	$t_r, t_f$	$I_F = 20 \text{ mA}$		40		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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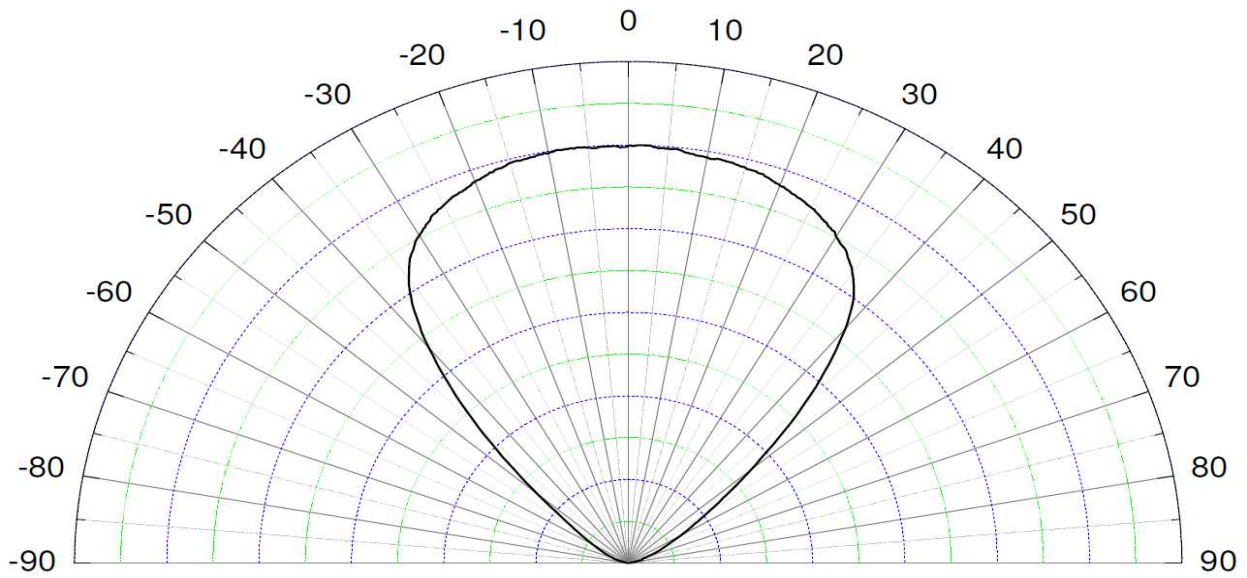
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Typical radiation pattern

Art. No. 430 020



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