

# EPIGAP Optronik GmbH

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## Data sheet

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### Infrared LED

### EOLD-1070-535

Rev. 02, 2017

Radiation	Type	Case
Infrared	InGaAs, MQW	5 mm plastic lens

Description:	
	<p>High-power, high-speed infrared LED in standard 5 mm package, housing without standoff leads</p> <p>For optical communications, safety equipment and 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	$t_p \leq 50 \mu\text{s}$ , $t_p / T = 1/2$	$I_{FM}$	200	mA
Power dissipation		$P_D$	150	mW
Operating temperature range		$T_{amb}$	-20 to +80	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-55 to +85	$^{\circ}\text{C}$
Lead soldering temperature	$t < 5 \text{ s}$ , 3 mm from case	$T_{slg}$	260	$^{\circ}\text{C}$

### Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 20 \text{ mA}$		1.25		V
Forward voltage	$V_F$	$I_F = 100 \text{ mA}$		1.35		V
Reverse voltage	$V_R$	$I_R = 10 \mu\text{A}$	5			V
Radiant power	$\Phi_e$	$I_F = 20 \text{ mA}$		10		mW
Radiant power	$\Phi_e$	$I_F = 100 \text{ mA}$		45		mW
Radiant intensity	$I_e$	$I_F = 20 \text{ mA}$		25		mW/sr
Radiant intensity	$I_e$	$I_F = 100 \text{ mA}$		110		mW/sr
Peak wavelength	$\lambda_p$	$I_F = 20 \text{ mA}$		1070		nm
FWHM	$\Delta\lambda_{0.5}$	$I_F = 20 \text{ mA}$		38		nm
Viewing angle	$\varphi$	$I_F = 20 \text{ mA}$		35		deg.
Switching time	$t_r, t_f$	$I_F = 20 \text{ mA}$		20		ns



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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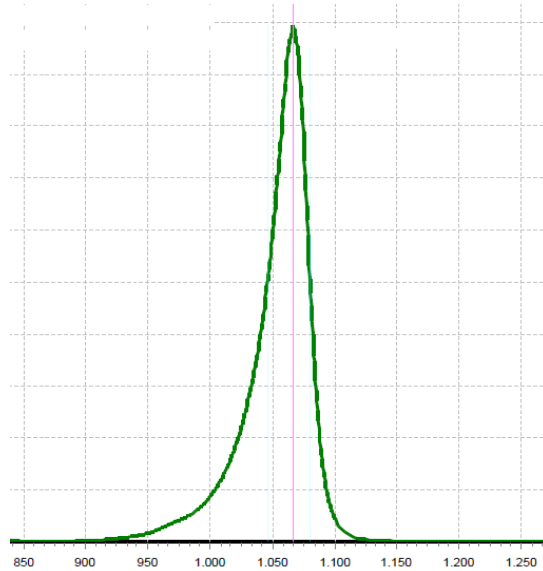
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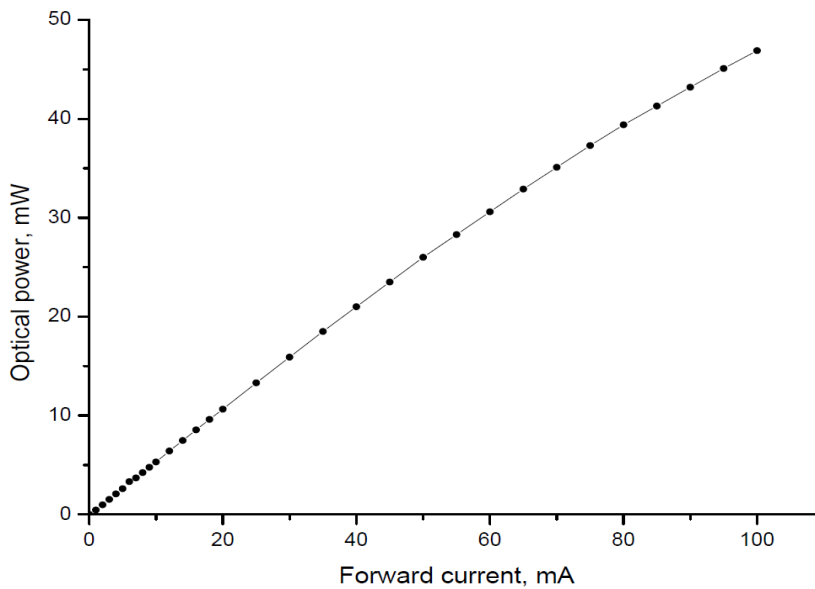
## Data Sheet

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Typical spectrum at 20 mA



Power vs. current

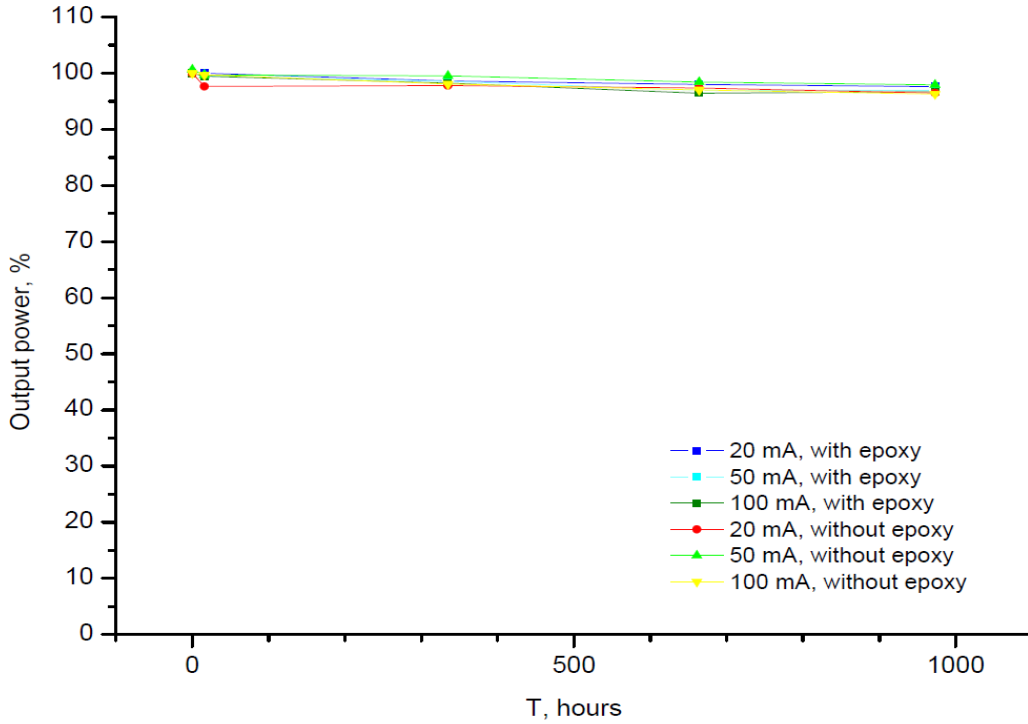


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**Data Sheet**

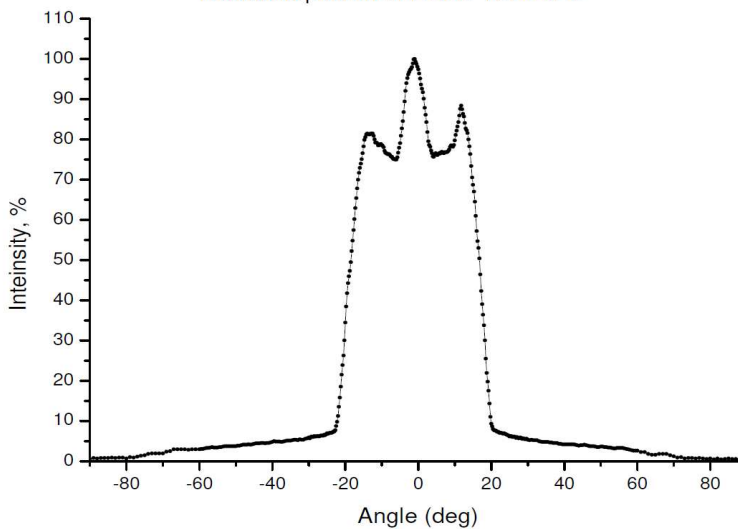
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Life time test on TO-18 headers at  $T_{amb} = 25^{\circ}C$

Radiation pattern of EOLD-1070-525



Art. No. 430 081



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