

# EPIGAP Optronik GmbH

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## Data sheet

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### Infrared LED

### EOLD-1450-015

Rev. 02, 2017

Radiation	Type	Case
Infrared	InGaAs/InP, MQW	TO-46 with glass lens cap

	Description:
<p style="text-align: center;">① Cathode      ② Anode                  Dimensions (Unit:mm)</p>	High-power, high speed, narrow beam angle, high reliability
	Application:
	Optical switches, optical communication, safety equipment, automation

### 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 (pulse)	$t \leq 50 \mu\text{s}$ , $T = 100 \mu\text{s}$	$I_{FM}$	200	mA
Reverse voltage	$I_R = 10 \mu\text{A}$	$V_R$	5	V
Power dissipation		$P_D$	100	mW
Operating temperature range		$T_{amb}$	-20 to +85	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-30 to +100	$^{\circ}\text{C}$
Lead soldering temperature	$t < 5 \text{ s}$ , 3 mm from case	$T_{slg}$	260	$^{\circ}\text{C}$
Junction temperature		$T_J$	100	$^{\circ}\text{C}$



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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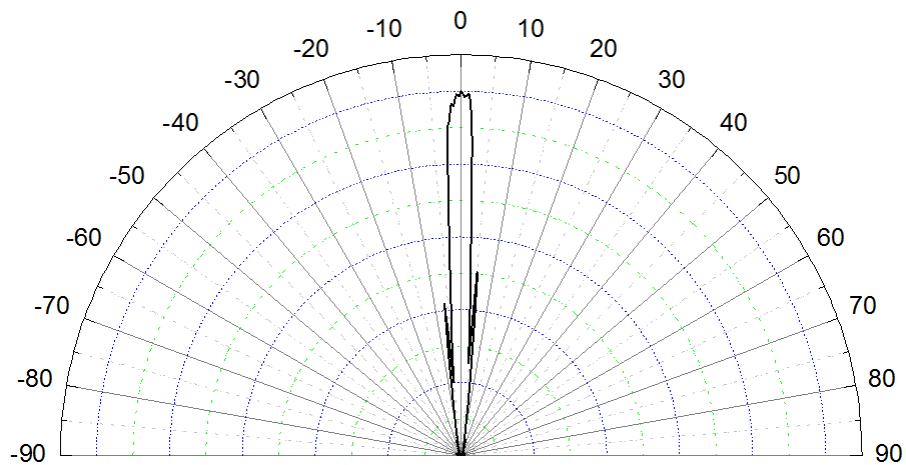
### EOLD-1450-015

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#### Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 20 \text{ mA}$		0.8		V
Reverse voltage	$V_R$	$I_R = 100 \mu\text{A}$	5			V
Radiant power	$\Phi_e$	$I_F = 20 \text{ mA}$		1.5		mW
Peak wavelength	$\lambda_p$	$I_F = 20 \text{ mA}$		1450		nm
FWHM	$\Delta\lambda_{0.5}$	$I_F = 20 \text{ mA}$		150		nm
Viewing angle	$\varphi$	$I_F = 20 \text{ mA}$		6		deg.
Switching times	$t_r, t_f$	$I_F = 20 \text{ mA}$		25; 45		ns



Typical radiation pattern

Art. No. 430 078



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