

EPIGAP Optronik GmbH

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Data sheet

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Infrared LED

EOLD-1650-525

Rev. 02, 2017

Radiation	Type	Case
Infrared	InGaAs/InP, 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	100	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	$I_F = 20 \text{ mA}$		0.7	0.95	V
Forward voltage	V_F	$I_F = 100 \text{ mA}$		0.8	1	V
Reverse voltage	V_R	$I_R = 10 \mu\text{A}$	5			V
Radiant power	Φ_e	$I_F = 20 \text{ mA}$	1.1	1.5		mW
Radiant power	Φ_e	$I_F = 100 \text{ mA}$	3.4	5		mW
Radiant intensity	I_e	$I_F = 20 \text{ mA}$		5.3		mW/sr
Radiant intensity	I_e	$I_F = 100 \text{ mA}$		25		mW/sr
Peak wavelength	λ_p	$I_F = 20 \text{ mA}$	1610	1650	1690	nm
FWHM	$\Delta\lambda_{0.5}$	$I_F = 20 \text{ mA}$		100		nm
Viewing angle	φ	$I_F = 20 \text{ mA}$		20		deg.
Switching time	t_r, t_f	$I_F = 20 \text{ mA}$		25; 45		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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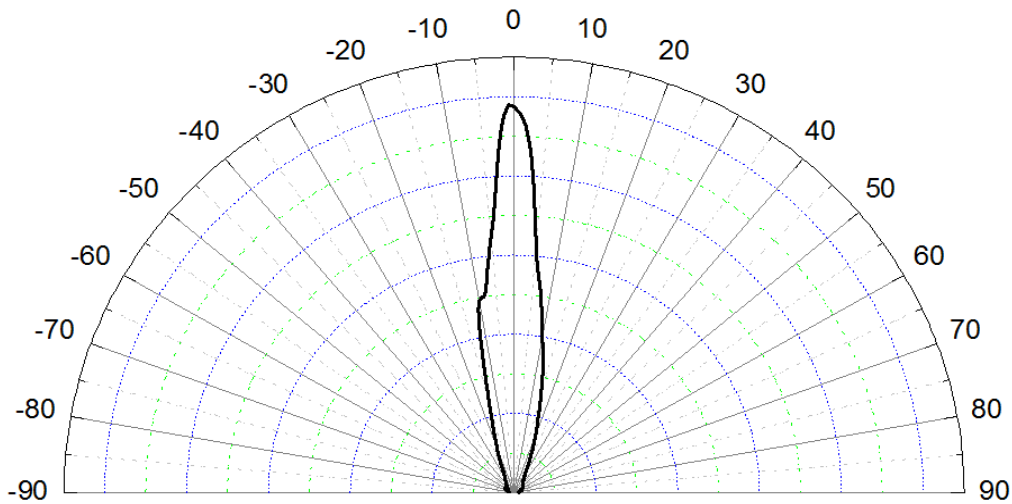
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Typical radiation pattern

Art. No. 430 075



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