

EPIGAP Optronik GmbH

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Data sheet

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Infrared LED

EOLD-1050-095

Rev. 02, 2017

Radiation	Type	Case
Infrared	GaAs, MQW	TO-46 package with flat window

	Description:
<p style="text-align: center;">All dimensions in mm</p>	<p>High-power, high speed, wide beam angle, high reliability</p>
	<p style="text-align: center;">Application</p> <p>Optical switches, optical communication, safety equipment, automation, applications requiring high output and precise optical / mechanical axis alignment.</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 (pulse)	pulse width=10 μs , duty=1%	I_{FP}	200	mA
Reverse voltage	$I_R=100 \mu\text{A}$	I_{FM}	5	V
Power dissipation		P_D	150	mW
Operating temperature range		T_{amb}	-25 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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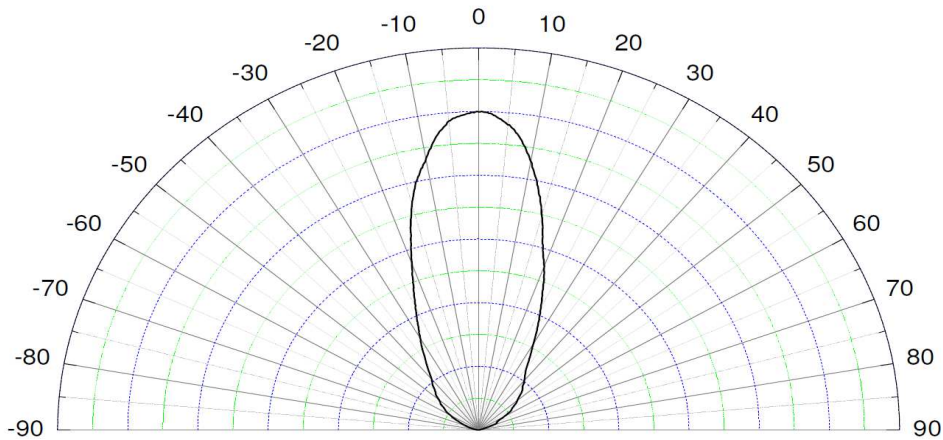
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Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 20 \text{ mA}$		1.15		V
Forward voltage	V_F	$I_F = 50 \text{ mA}$		1.2	1.4	V
Forward voltage	V_F	$I_F = 100 \text{ mA}$		1.25		V
Reverse current	I_R	$V_R = 5 \text{ V}$		10		μA
Radiant power	Φ_e	$I_F = 20 \text{ mA}$		5		mW
Radiant power	Φ_e	$I_F = 50 \text{ mA}$		12		mW
Radiant power	Φ_e	$I_F = 100 \text{ mA}$		19		mW
Peak wavelength	λ_p	$I_F = 50 \text{ mA}$	1000	1050	1100	nm
FWHM	$\Delta\lambda_{0,5}$	$I_F = 50 \text{ mA}$		100		nm
Viewing angle	φ	$I_F = 50 \text{ mA}$		$\pm 20 = 40$		deg.
Switching time	t_r, t_f	$I_F = 50 \text{ mA}$		10		ns



Radiation pattern

Art. No. 134 094



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