

EPIGAP Optronik GmbH

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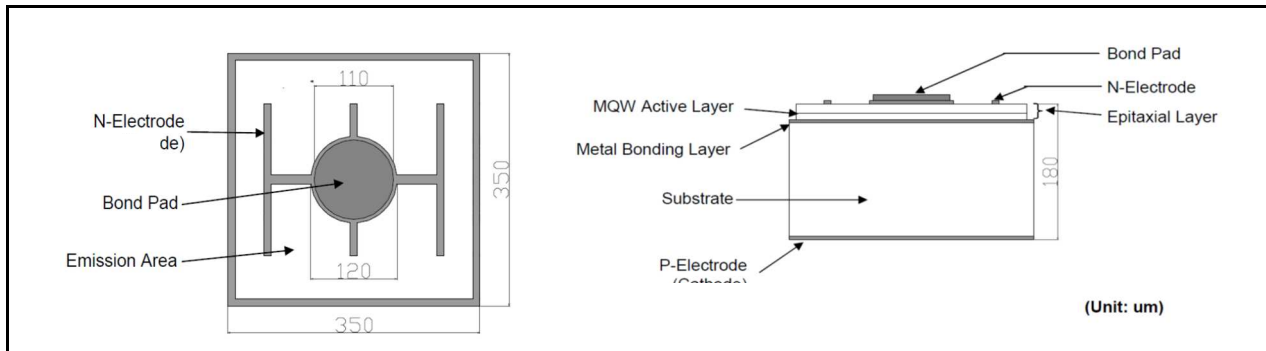


Data Sheet

LED Chip Infrared

EOLC-1070-25

Radiation	Type	Electrodes
Infrared	InGaAs-based, MQW	n (cathode) up



Die size (typ.): 0.350 mm × 0.350 mm (14 mil), thickness (typ.): 0.180 mm (7 mil)
 Bond pad size: 0.110 mm diameter (periphery = 0.120 mm diameter)
 Anode and cathode metallization: gold-alloy

Maximum Ratings

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current		I_F	100	mA
Reverse voltage		V_R	5	V

Optical and Electrical Characteristics

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



Parameter	Test cond.	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 20 \text{ mA}$	V_F		1.25	1.5	V
Forward voltage	$I_F = 50 \text{ mA}$	V_F		1.28		V
Forward voltage	$I_F = 100 \text{ mA}$	V_F		1.32		V
Reverse current	$V_R = 5 \text{ V}$	I_R			10	μA
Radiant power*	$I_F = 20 \text{ mA}$	Φ_e		5		mW
Radiant power*	$I_F = 50 \text{ mA}$	Φ_e		13.5		mW
Radiant power*	$I_F = 100 \text{ mA}$	Φ_e		23.5		mW
Radiant power**	$I_F = 20 \text{ mA}$	Φ_e		10		mW
Radiant power**	$I_F = 50 \text{ mA}$	Φ_e		27		mW
Radiant power**	$I_F = 100 \text{ mA}$	Φ_e		47		mW
Peak wavelength	$I_F = 20 \text{ mA}$	λ_p		1070		nm
FWHM	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		38		nm
Rise time	$I_F = 20 \text{ mA}$	t_r		18		ns
Fall time	$I_F = 20 \text{ mA}$	t_f		18		ns

* bare chip on TO-18 socket without encapsulation, ** chip on TO-18 socket with epoxy encapsulation

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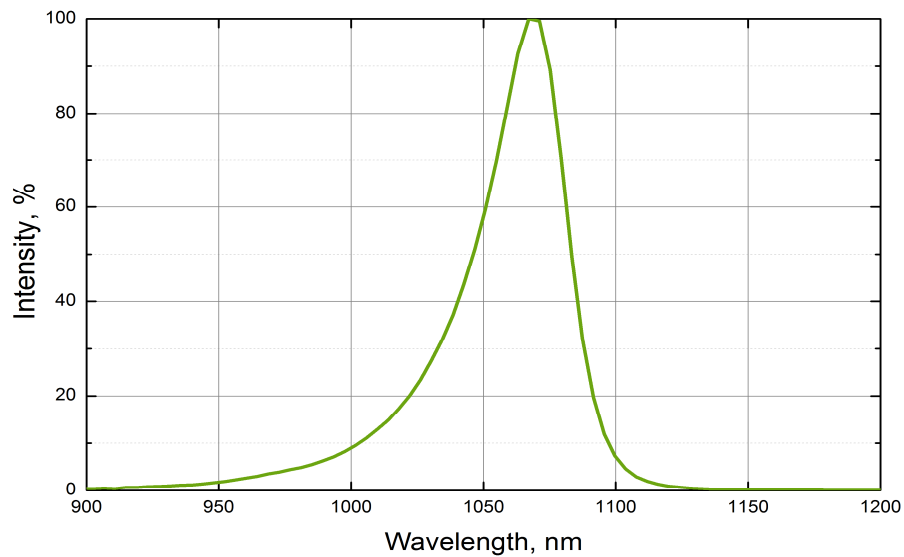
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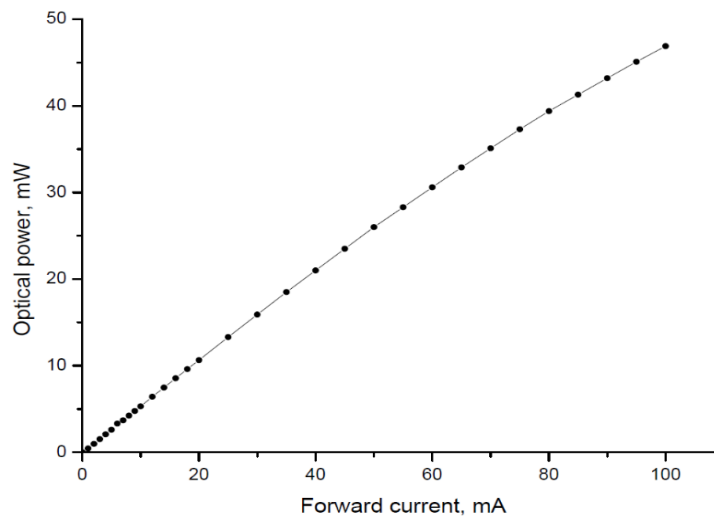
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Typical spectrum at 20 mA



Power vs. current for chip on TO-18 socket with epoxy encapsulation

Art. No. 131 153



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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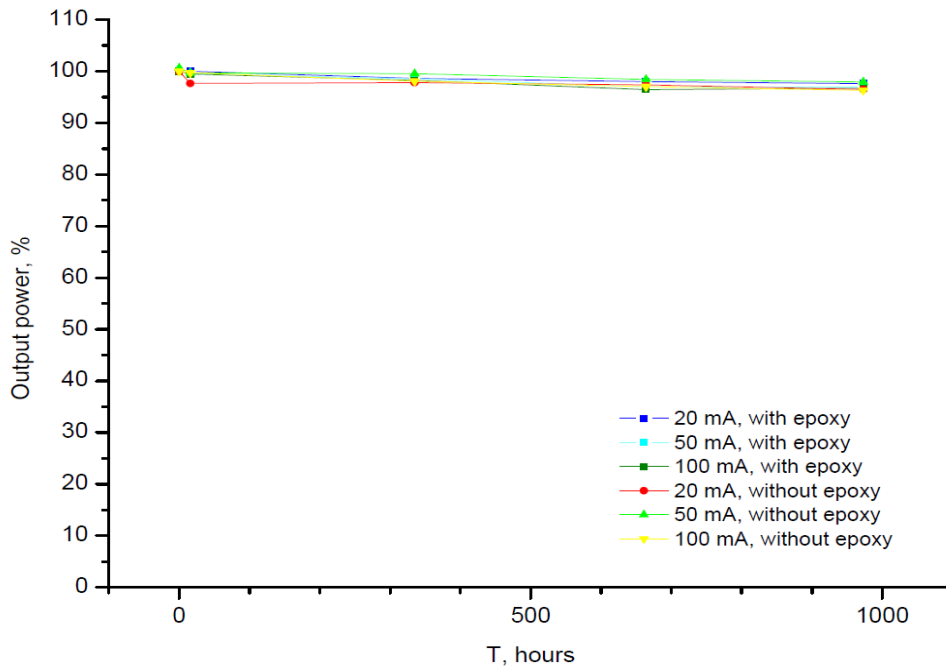
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Data Sheet

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

Packing

Dice on adhesive film with wire bond side up.

Art. No. 131 153



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