

# EPIGAP Optronic GmbH

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## Data Sheet

## Preliminary

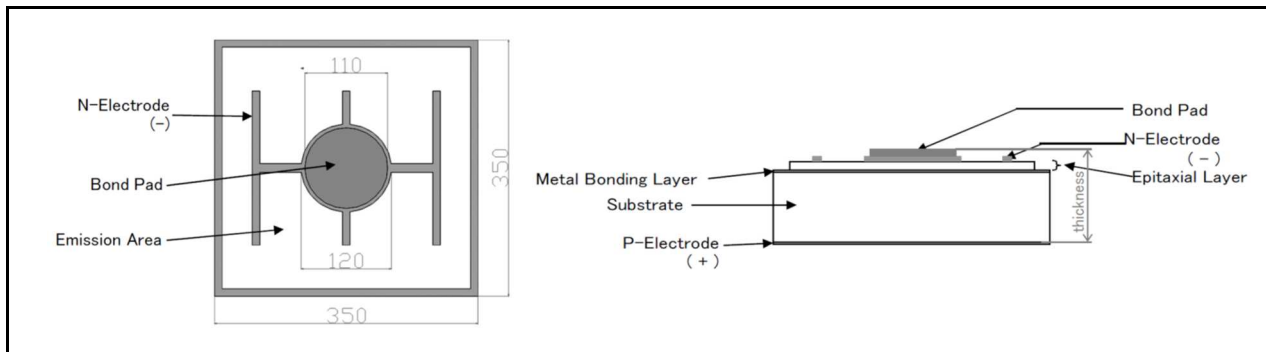
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## Infrared LED Chip

## EOLC-1300-27D

Rev. 02, 2020

Radiation	Type	Electrodes
Infrared	InGaAs - based material, 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: Ø 0.110 mm (periphery = Ø 0.120 mm)

Contact metallization: gold alloy

### Optical and Electrical Characteristics

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Test cond.	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> =20 mA	V <sub>F</sub>		0.96		V
Radiant power*	I <sub>F</sub> =20 mA	Φ <sub>e</sub>		4		mW
Radiant power**	I <sub>F</sub> =20 mA	Φ <sub>e</sub>		7.2		mW
Peak wavelength	I <sub>F</sub> =20 mA	λ <sub>p</sub>		1270		nm
FWHM	I <sub>F</sub> =20 mA	Δλ <sub>0.5</sub>		72		nm
Forward voltage	I <sub>F</sub> =50 mA	V <sub>F</sub>		1.0		V
Radiant power**	I <sub>F</sub> =50 mA	Φ <sub>e</sub>		13.9		mW
Peak wavelength	I <sub>F</sub> =50 mA	λ <sub>p</sub>		1276		nm
FWHM	I <sub>F</sub> =50 mA	Δλ <sub>0.5</sub>		82		nm
Forward voltage	I <sub>F</sub> =100 mA	V <sub>F</sub>		1.1		V
Radiant power**	I <sub>F</sub> =100 mA	Φ <sub>e</sub>		19.5		mW
Peak wavelength	I <sub>F</sub> =100 mA	λ <sub>p</sub>		1290		nm
FWHM	I <sub>F</sub> =100 mA	Δλ <sub>0.5</sub>		95		nm
Rise time	I <sub>F</sub> =20 mA	t <sub>r</sub>		30		ns
Fall time	I <sub>F</sub> =20 mA	t <sub>f</sub>		30		ns

\*Measured on bare chip on TO-18 header

\*\*Measured on epoxy covered chip on TO-18 header



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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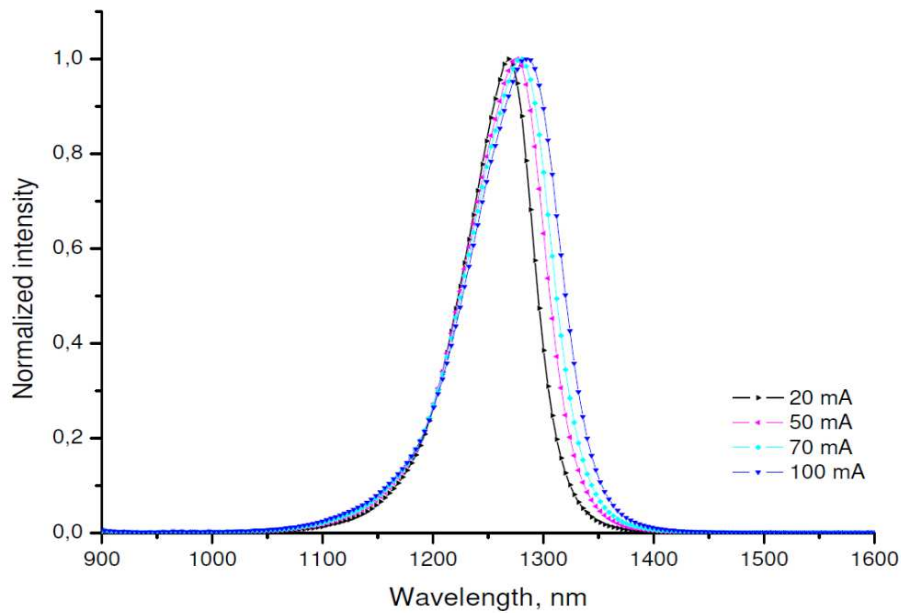
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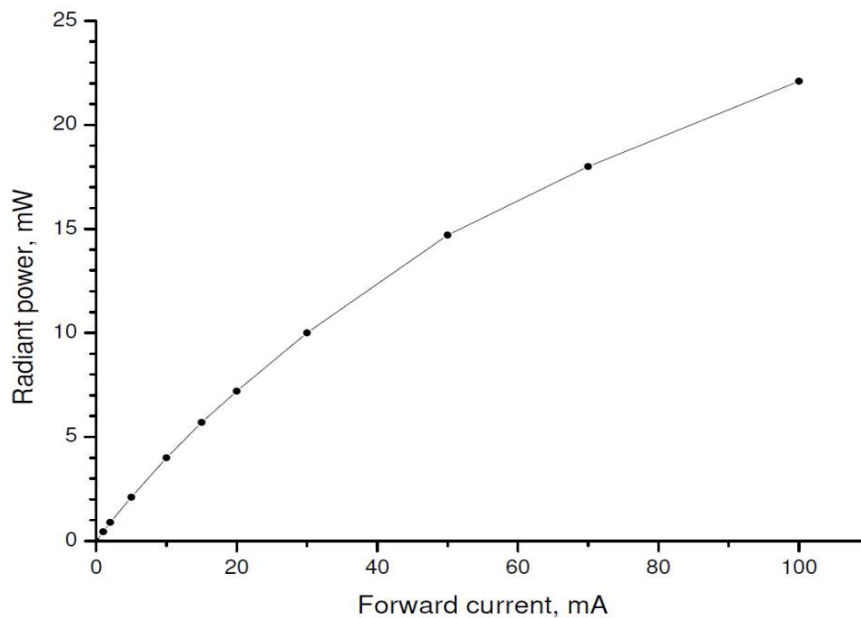
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## EOLC-1300-27

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Spectra at different currents



Radiant power vs. forward current (epoxy covered chip on TO-18 header)



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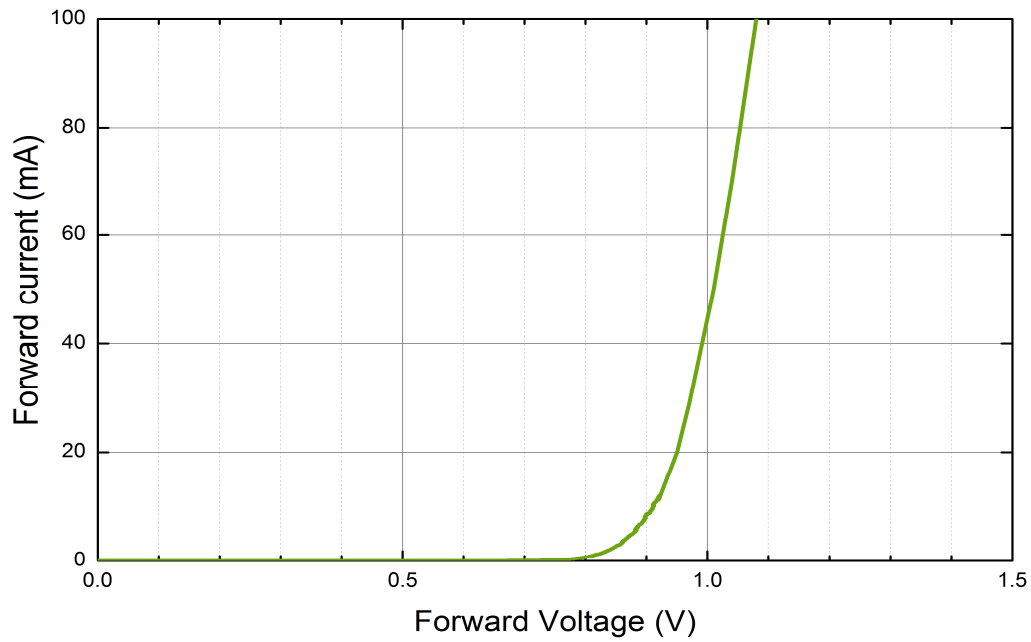
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Forward current vs. forward voltage

### Packing

Dice on adhesive film with wire bond side up.

Art. No. 113 158



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