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Data Sheet

Preliminary

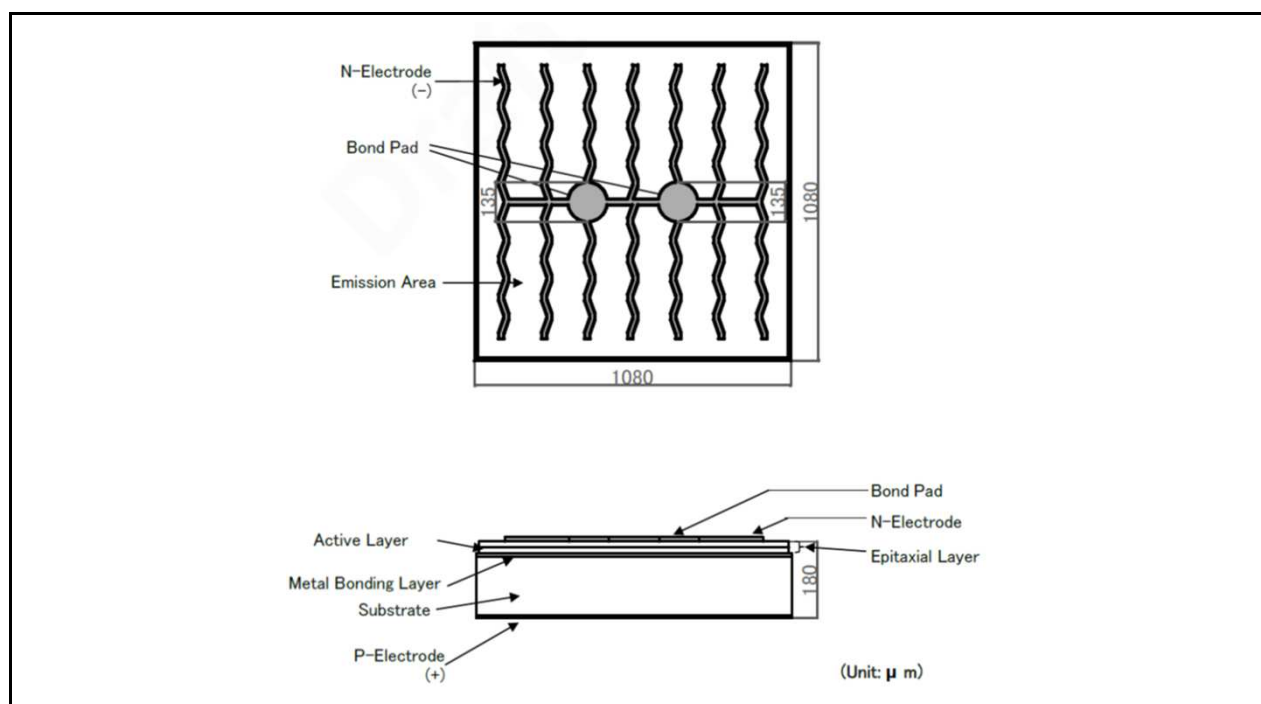
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Infrared LED Chip

EOLC-1200-21

Rev. 02, 2019

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



Die size (typ.): 1.080 mm × 1.080 mm (42 mil)

Thickness (typ.): 0.180 mm (7 mil)

Bond pads size: Ø 0.130 mm (periphery = Ø 0.135 mm)

Contact metallization anode and cathode: gold alloy

Maximum Ratings

T_{amb} = 25°C, unless otherwise specified

Parameter	Test Conditions	Symbol	Value	Unit
Continuous forward current*		I _F	1000	mA
Peak forward current*		I _{FP}	2000	mA
Reverse current	I _R = 5 V	I _R	10	μA
Junction temperature		T _J	120	°C

*For reference only



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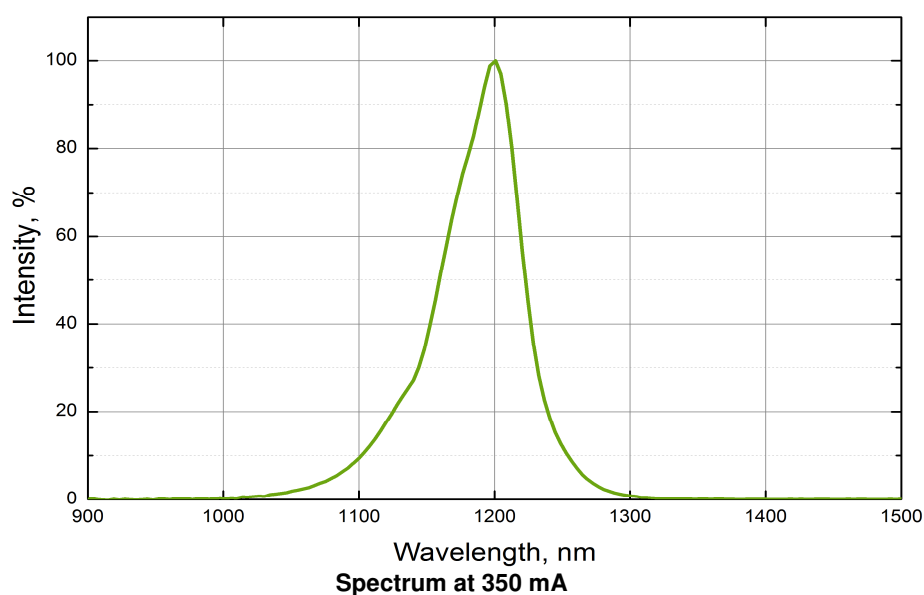
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Optical and Electrical Characteristics $T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test cond.	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 20\text{ mA}$	V_F		0.90		V
Radiant power**	$I_F = 20\text{ mA}$	Φ_e		4.3		mW
Peak wavelength	$I_F = 20\text{ mA}$	λ_p		1200		nm
FWHM	$I_F = 20\text{ mA}$	$\Delta\lambda_{0.5}$		45		nm
Forward voltage	$I_F = 350\text{ mA}$	V_F		1.1		V
Radiant power**	$I_F = 350\text{ mA}$	Φ_e		56		mW
Peak wavelength	$I_F = 350\text{ mA}$	λ_p		1200		nm
FWHM	$I_F = 350\text{ mA}$	$\Delta\lambda_{0.5}$		62		nm
Forward voltage	$I_F = 700\text{ mA}$	V_F		1.23		V
Radiant power**	$I_F = 700\text{ mA}$	Φ_e		90		mW
Peak wavelength	$I_F = 700\text{ mA}$	λ_p		1200		nm
FWHM	$I_F = 700\text{ mA}$	$\Delta\lambda_{0.5}$		70		nm
Forward voltage	$I_F = 1000\text{ mA}$	V_F		1.33		V
Radiant power**	$I_F = 1000\text{ mA}$	Φ_e		110		mW
Peak wavelength	$I_F = 1000\text{ mA}$	λ_p		1200		nm
FWHM	$I_F = 1000\text{ mA}$	$\Delta\lambda_{0.5}$		74		nm

*Measured on bare chip on star board

**For silicon covered chip on star board



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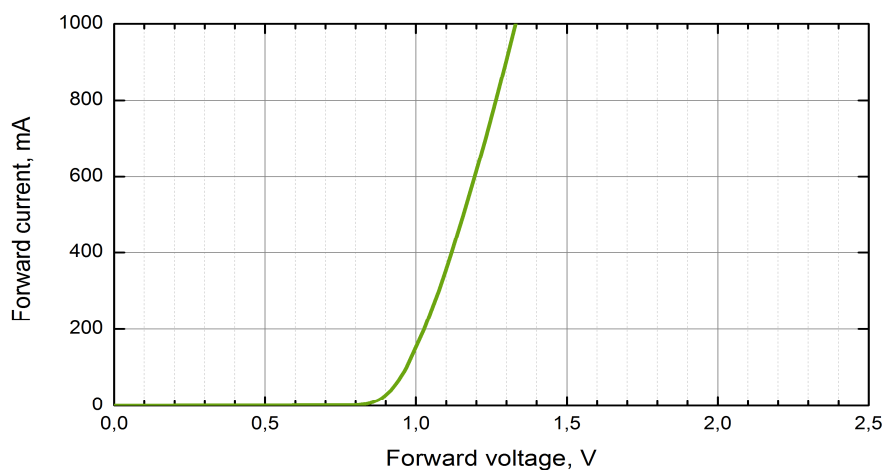
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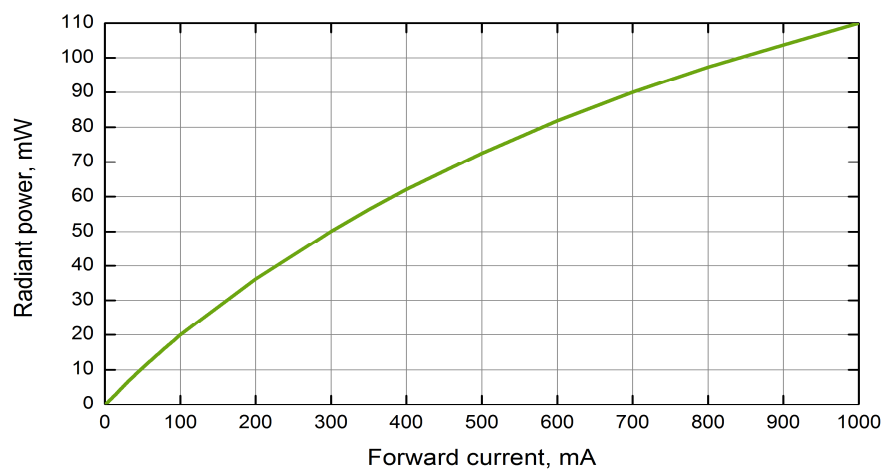
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Forward current vs. forward voltage



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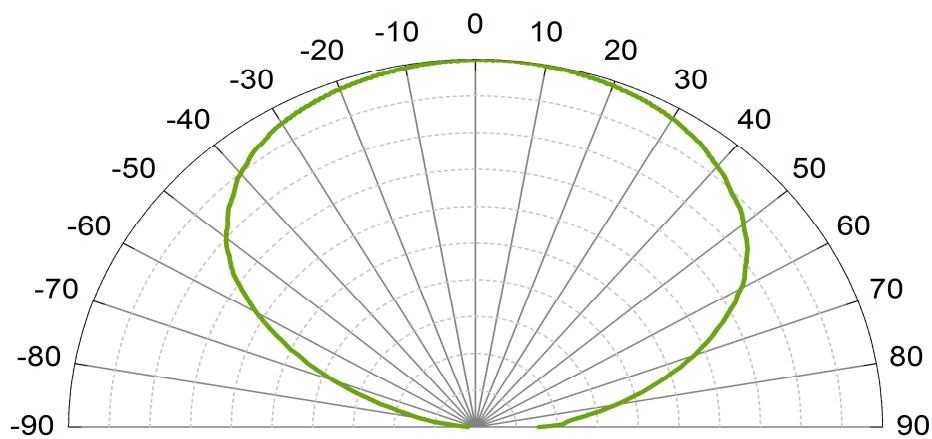
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Radiation pattern

Packing

Dice on adhesive film with wire bond side up.

Art. No. 113 xxx



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