

DATASHEET

OCI-460 ID1200-XS



**High Power Infrared LED with Silicone Glob Top
on Starboard (with cables attached)**

Features:

- High power IR SMD LED with glob top mounted on starboard
- Starboard material: Al
- Backside isolated
- ROHS and REACH compliant
- Lead-free solderable
- Delivered with cables attached

Applications:

- Sensing
- Industrial
- Medical
- Life Science

This high power 1200 nm infrared SMD LED is engineered for industrial and life science sensing applications.

Typical Electro-Optical Characteristics

Measurement conditions

 $T_{\text{ambient}} = 23\text{ °C}$; $t_{\text{test}} \leq 60\text{ ms}$

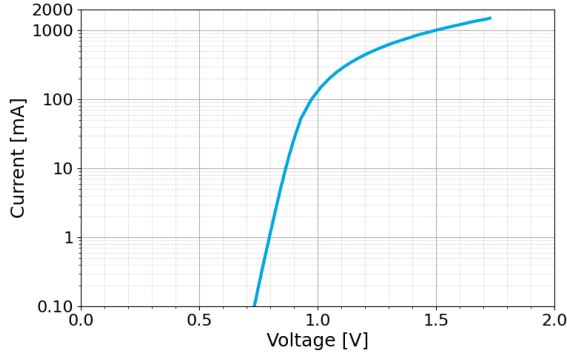
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Emitting Color	Infrared					
Forward Voltage	V_f	$I_f = 350\text{ mA}$		1.1	1.6	V
		$I_f = 1000\text{ mA}$		1.5		
Peak Wavelength	λ_P	$I_f = 350\text{ mA}$	1150	1200	1250	nm
FWHM	$\Delta\lambda$	$I_f = 350\text{ mA}$		60		nm
		$I_f = 1000\text{ mA}$		70		
Radiant Power	Φ_e	$I_f = 350\text{ mA}$		120		mW
		$I_f = 1000\text{ mA}$		270		
		$I_f = 1500\text{ mA}$		340		
Radiant Intensity ⁽¹⁾	I_e	$I_f = 350\text{ mA}$	22	45		mW/sr
		$I_f = 1000\text{ mA}$		100		
View Angle	θ	$I_f = 350\text{ mA}$		135		deg.
Reverse Current	I_R	$V_R = 5\text{ V}$			10	μA

(1) Measured according to the CIE 127, Condition B

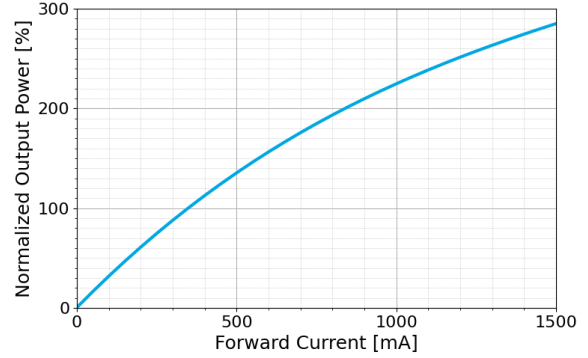
Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Forward Current	$I_{f, \text{max}}$		1500	mA
Reverse Voltage	V_R		5	V
Operating Temperature	T_{op}	-40	+85	°C
Storage Temperature	T_{st}	-40	+85	°C

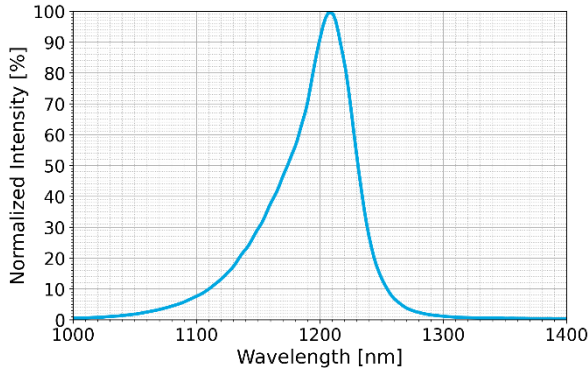
Typical Performance



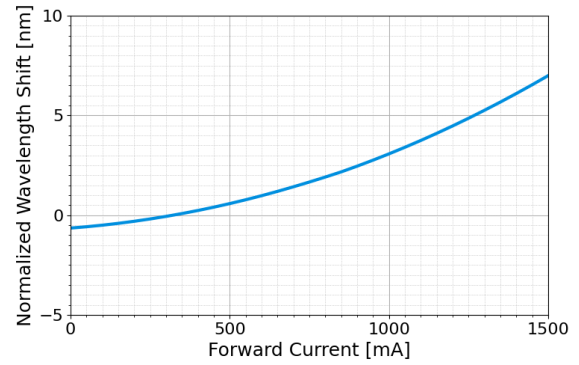
Forward Current vs. Forward Voltage



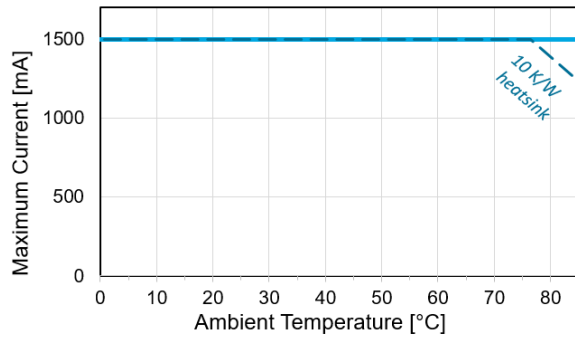
Relative Intensity vs. Forward Current



Optical Spectrum

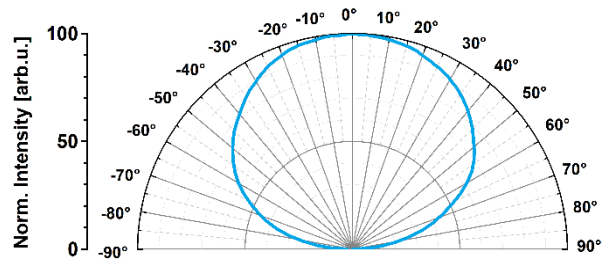


Wavelength Shift vs. Forward Current



Maximum Ratings⁽¹⁾

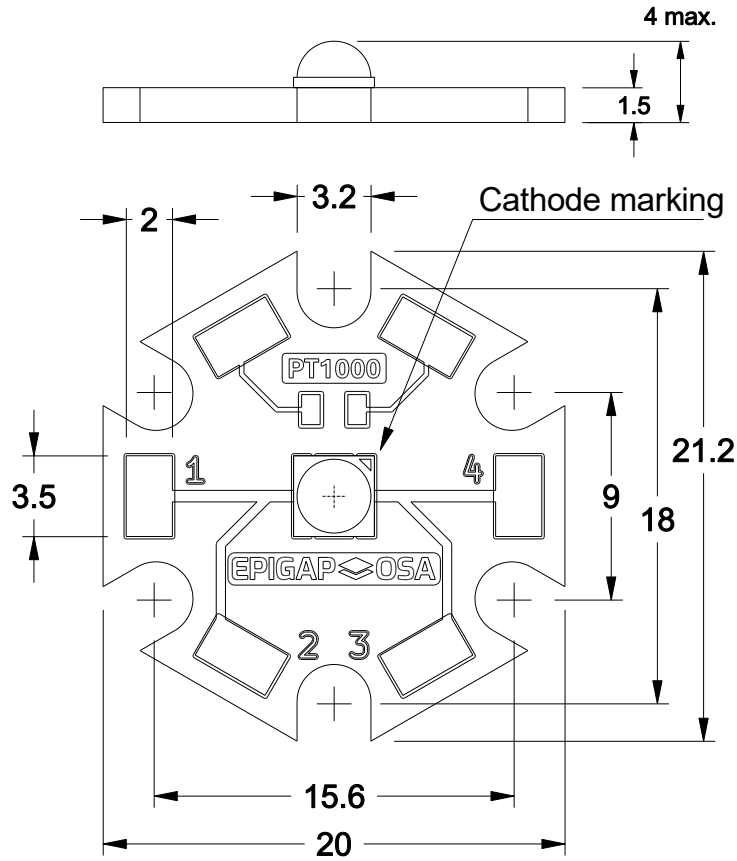
(1) Assuming connection to an infinite heatsink if not stated otherwise



Radiation Pattern

Outline Drawing

Unless otherwise specified, all drawing units are in mm
Tolerances are: ISO 2768-m



The starboards are delivered with cables attached to following pads:

Cathode (N/-) pad: 4

Anode (P/+) pad: 1

Packing

Packing

The device is packaged in special resealable plastic bag with integrated ESD protection.

Shelf life for sealed bag 12 month at max. 30 °C and 60% Rh.

Notice

The information describes the type of component and shall not consider as assured characteristics. Terms of delivery and rights to change reserved. The data sheet may change without prior notification; the only valid issue and current revision can be on our website. Due to technical requirements, components may contain dangerous substances.

It is the responsibility of the customer to evaluate and ensure that the use of the products in their specific applications complies with relevant safety standards and regulations. Customers must assess the exposure conditions within their systems and ensure that appropriate measures are taken to prevent exceeding the permissible exposure limits outlined in IEC 62471. EPIGAP OSA Photonics GmbH does not assume liability for any non-compliance arising from the integration or usage of LEDs in customer systems.

Parameters can vary in different applications. The customer must validate all operating parameters for each application. EPIGAP OSA Photonics GmbH does not have the responsibility for the reliability and the degradation behavior of products made with EPIGAP OSA Photonics GmbH diodes as they depend not only on the product itself but also on the operation, manufacturing or design of the final products. The customer is responsible for ensuring the long-term stability of the product according to their requirements. If components are used in toys or life support systems, EPIGAP OSA Photonics GmbH must expressly authorize the use of the components prior to incorporating them into the customer's systems! Packaging: EPIGAP OSA Photonics GmbH uses recyclable packages.

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