DATASHEET

EOLD-365-012-1

365 nm UV LED in TO-can with glass lens

Features:

- TO-46
- Glass Lens with 10° view angle
- Size: 20 mm (total length)
  4.7 mm (cap diameter)
  5.36 mm (header diameter)
- ROHS and REACH compliant
- Lead-free solderable

Applications:

- Sensing
- Biometric security
- Curing
- Material inspection

Typical Electro-Optical Characteristics

Measurement conditions $T_{ambient}$ = 23 °C; t_{test} ≤ 60 ms

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Emitting Color				Ultraviolet		
Forward Voltage	V_f	I_f = 20 mA		3.3	4.1	V
Peak Wavelength	λ_P	I_f = 20 mA	360	365	370	nm
FWHM	$\Delta\lambda$	I_f = 20 mA		8		nm
Radiant Intensity (1)	I_e	I_f = 20 mA		100		mW/sr
Radiant Power	Φ_e	I_f = 20 mA		9		mW
View Angle	θ	I_f = 20 mA		10		deg.
Reverse Current (2)	I_R	V_R = 5V			--	µA

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

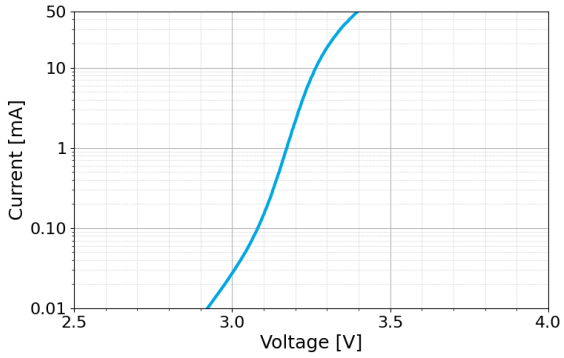
(2) LED should never be operated with reverse bias

Maximum Ratings

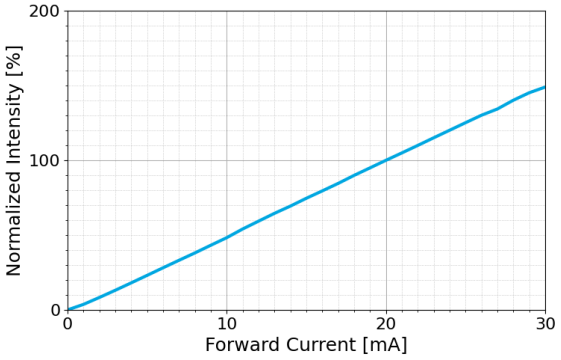
Parameter		Symbol	Min	Max	Unit
Forward Current		$I_{f, max}$		30	mA
Forward Current, pulsed	tp ≤ 100µs, τ=1:10	$I_{f, pulse}$		100	mA
Reverse Voltage		V_R		--	V
Soldering Temperature	≤3 s	T_{Sol}		350	°C
Operating Temperature		T_{op}	-40	85	°C
Storage Temperature		T_{St}	-40	85	°C

Electrostatic discharge classification (MIL-STD-883): Class 1

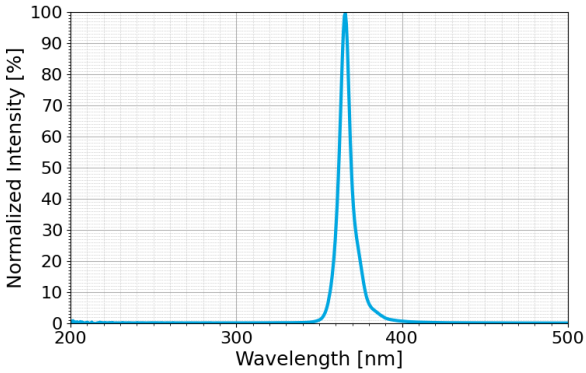
Typical Performance



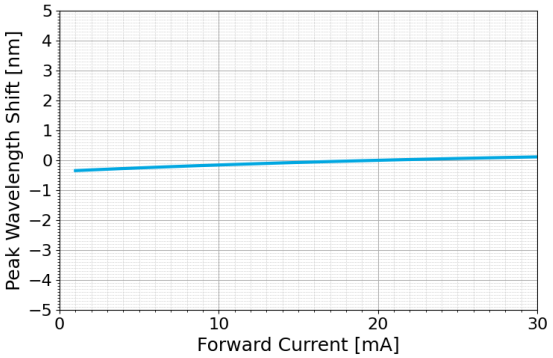
Current vs. Forward Voltage



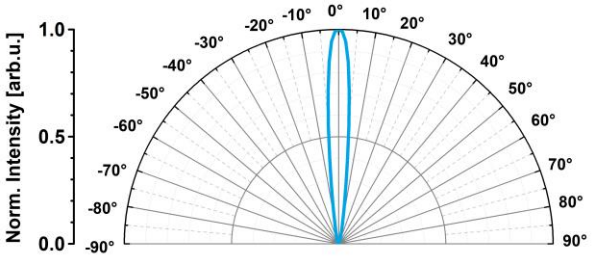
Relative Intensity vs. Forward Current



Optical Spectrum



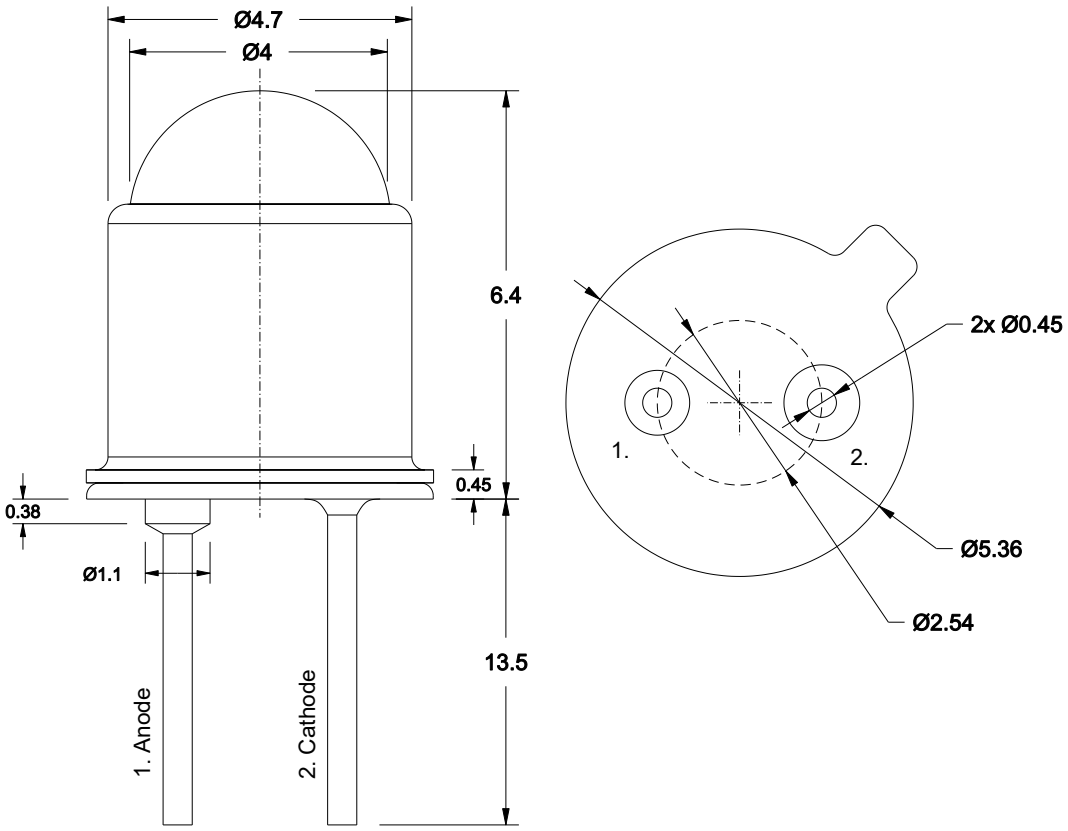
Wavelength Shift vs. Forward Current



Radiation Pattern

Outline Drawing

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



Pin 1 – Anode
Pin 2 – Cathode

Warnings (UV light)

- **While in operation UV LEDs emit intense but mainly invisible ultraviolet radiation, which may be harmful to eyes, even for brief periods.**
- **Do not look directly into the UV LED during operation.**
- **Be sure that you and everyone in the vicinity wear safety goggles that provide suitable UV protection when operating a UV LED.**
- **Please follow all standard procedures for storing, handling, cleaning, mounting, soldering, disposing, or otherwise handling LED dies or packaged LEDs, including static electricity protection.**
- **The user has the responsibility to inform, train and instruct, customers and employees of the dangers to eye safety.**
- **UV LEDs are ESD sensitive (Class1). Handling and use of UV LEDs must be compatible with the ESD sensitivity rating.**

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 to ensure 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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