

Product guide UV LEDs

225 nm – 400 nm

UV LEDs: Applications



Medical sensors
Drug discovery
Fluorescence



Disinfection of
air, fluids and surfaces

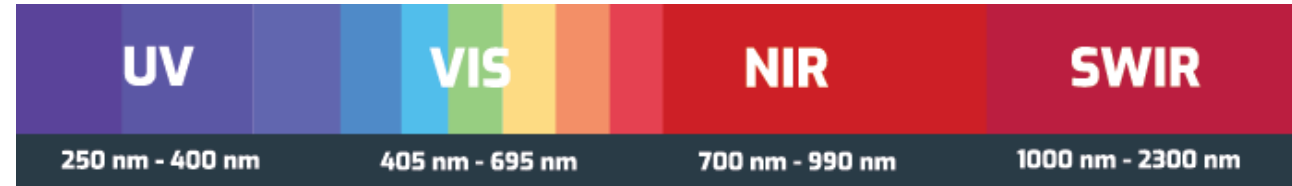


Therapy

Agriculture
Plant growth

Forensics

UV Curing
3D Printing
Hardening of materials
Adhesives, Glues, etc.



UV: 250-405 nm

- Optical sensing

UV-C: 200-280 nm

- Water purification and disinfection
- Air purification
- Surface sterilization

UV-B: 280-320 nm

- Medical phototherapy, dialysis
- Agriculture, plant growth
- Protein analysis, drug discovery, fluorescence

UV-A: 320-405 nm

- Curing of inks, adhesives and coatings
- Forensics, counterfeit detection

UV LEDs: Application Highlights

Dialysis & Disinfection 230-285 nm

In dialysis and disinfection, LEDs emitting ultraviolet (UV) light in the UVC range (200-280 nm) are commonly used. UVC light is effective in disinfection because it damages the DNA and RNA of bacteria and viruses, preventing them from replicating. This makes it ideal for sterilizing surfaces, water, and air in medical equipment like dialysis machines.

EPIGAP OSA Products:

https://www.epigap-osa.com/datasheet/OCU-430_UC285.pdf



Treatment of psoriasis, vitiligo, and eczema. 310 nm

UVB LEDs (narrowband UVB, specifically around 310 nm) are commonly used in the treatment of psoriasis and vitiligo because this wavelength effectively slows the abnormal growth of skin cells in psoriasis and stimulates repigmentation in vitiligo by promoting the migration of melanocytes to the skin surface.

EPIGAP OSA Products:

<https://www.epigap-osa.com/datasheet/EOLS-310-695.pdf>



Fluorescence for drug discovery UV – Blue LEDs

UV and blue LEDs are used in fluorescence-based drug discovery to excite fluorescent molecules attached to biological samples. This allows scientists to visualize drug interactions by tracking emitted light from the dyes, facilitating drug screening and analysis.

EPIGAP OSA Products:

Wide range of UV and Blue LEDs

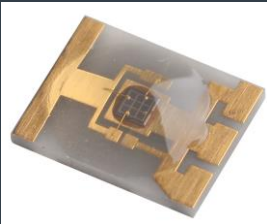


High power LED with lens
Narrow view angle 20°



6.0(L) x 4.6(W) x 4.3(H) mm

High power LED
With glob top



6.0(L) x 4.7(W) x 1.1(H) mm

Series: 490

WL	λc-Typ	PN	Output	Test Current	View Angle	Datasheet:
UV-A	365	OCU-490-20 IE365-XG	1200 mW/sr	350 mA	20	https://www.epigap-osa.com/datasheet/OCU-490-20_IE365-XG.pdf
UV-A	365	OCU-490-20 UE365-XG	800 mW/sr	350 mA	20	https://www.epigap-osa.com/datasheet/OCU-490-20_UE365-XG.pdf
UV-A	380	OCU-490-20 UE380-XG	900 mW/sr	350 mA	20	https://www.epigap-osa.com/datasheet/OCU-490-20_UE380-XG.pdf
UV-A	390	OCU-490-20 UE390-XG	1100 mW/sr	350 mA	20	https://www.epigap-osa.com/datasheet/OCU-490-20_UE390-XG.pdf
UV-A	400	OCU-490-20 UE400-XG	1600 mW/sr	350 mA	20	https://www.epigap-osa.com/datasheet/OCU-490-20_UE400-XG.pdf

Series: 480

WL	λc-Typ	PN	Output	Test Current	View Angle	Datasheet:
UV-A	365	OCU-480 UE365	60 mW/sr	350 mA	150	https://www.epigap-osa.com/datasheet/OCU-480_UE365.pdf
UV-A	390	OCI-480 UE390	107 mW/sr	350 mA	150	https://www.epigap-osa.com/datasheet/OCU-480_UE390.pdf
UV-A	400	OCU-480 UE400	83 mW/sr	350 mA	150	https://www.epigap-osa.com/datasheet/OCU-480_UE400.pdf

High power UV-A LEDs provide energy-efficient, long-lasting solutions for applications like curing, photolithography, and forensic analysis, with lower heat output and reduced environmental impact compared to traditional UV sources.

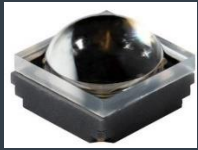
3.5(L) x 3.5(W) x 3.1(H) mm



High power LED with lens
Narrow view angle 35°

WL	λc-Typ	PN	Output	Test Current	View Angle	Datasheet:
UV-B	308	EOLS-310-637	43 mW	350 mA	35	https://www.epigap-osa.com/datasheet/EOLS-310-637.pdf
UV-A	325	EOLS-325-637	41 mW	350 mA	35	https://www.epigap-osa.com/datasheet/EOLS-325-637.pdf
UV-A	340	EOLS-340-637	60 mW	350 mA	35	https://www.epigap-osa.com/datasheet/EOLS-340-637.pdf

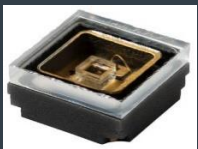
3.5(L) x 3.5(W) x 2.5(H) mm



High power LED with lens
Large view angle 70°

WL	λc-Typ	PN	Output	Test Current	View Angle	Datasheet:
UV-B	308	EOLS-310-667	47 mW	350 mA	65	https://www.epigap-osa.com/datasheet/EOLS-310-667.pdf
UV-A	325	EOLS-325-677	55 mW	350 mA	70	https://www.epigap-osa.com/datasheet/EOLS-325-677.pdf
UV-A	340	EOLS-340-677	85 mW	350 mA	70	https://www.epigap-osa.com/datasheet/EOLS-340-677.pdf

3.5(L) x 3.5(W) x 1.2(H) mm

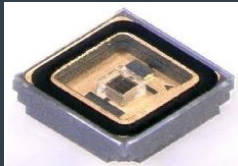


High power LED
Flat top

WL	λc-Typ	PN	Output	Test Current	View Angle	Datasheet:
UV-B	308	EOLS-310-697	50 mW	350 mA	120	https://www.epigap-osa.com/datasheet/EOLS-310-697.pdf
UV-A	325	EOLS-325-697	47 mW	350 mA	120	https://www.epigap-osa.com/datasheet/EOLS-325-697.pdf
UV-A	340	EOLS-340-697	70 mW	350 mA	120	https://www.epigap-osa.com/datasheet/EOLS-340-697.pdf

UV-A and UV-B LEDs provide energy-efficient solutions for applications medical sensing and security applications. Variety of lenses allows to tailor the emission profiles of the LED to specific application.

3.5(L) x 3.5(W) x 1.2(H) mm
3.5(L) x 3.5(W) x 1.5(H) mm



Medium power LED
Flat top

WL	λc-Typ	PN	Output	Test Current	View Angle	Datasheet:
UV-C	225	OCI-431 UI225 (NEW)	0.6 mW	200 mA	115	https://www.epigap-osa.com/datasheet/OCU-431_UI225.pdf
UV-C	230	OCI-431 UI230 (NEW)	6 mW	200 mA	115	https://www.epigap-osa.com/datasheet/OCU-431_UI230.pdf
UV-C	255	OCU-430 UC255 (NEW)	15 mW	100 mA	120	https://www.epigap-osa.com/datasheet/OCU-430_UC255.pdf
UV-C	265	OCU-430 UC265 (NEW)	15 mW	100 mA	120	https://www.epigap-osa.com/datasheet/OCU-430_UC265.pdf
UV-C	275	OCU-430 UC275 (NEW)	15 mW	100 mA	120	https://www.epigap-osa.com/datasheet/OCU-430_UC275.pdf
UV-C	285	OCU-430 UC285	15 mW	100 mA	120	https://www.epigap-osa.com/datasheet/OCU-430_UC285.pdf
UV-B	308	OCU-430 UC308 (NEW)	15 mW	100 mA	120	https://www.epigap-osa.com/datasheet/OCU-430_UC308.pdf
UV-B	310	EOLS-310-695	19 mW	100 mA	120	https://www.epigap-osa.com/datasheet/EOLS-310-695.pdf
UV-A	325	EOLS-325-695	14 mW	100 mA	120	https://www.epigap-osa.com/datasheet/EOLS-325-695.pdf
UV-A	340	EOLS-340-695	14 mW	100 mA	120	https://www.epigap-osa.com/datasheet/EOLS-340-695.pdf
UV-A	340	OCU-430 UC340 (NEW)	33 mW	100 mA	120	https://www.epigap-osa.com/datasheet/OCU-430_UC340.pdf

3(L) x 2(W) x 1(H) mm



Compact LED
Flat top

WL	λc-Typ	PN	Output	Test Current	View Angle	Datasheet:
UV-A	355	OCU-400_UB355	0.45 mW/sr	20 mA	120	https://www.epigap-osa.com/datasheet/OCU-400_UB355.pdf
UV-A	365	OCU-400_UB365	0.78 mW/sr	20 mA	120	https://www.epigap-osa.com/datasheet/OCU-400_UB365.pdf
UV-A	365	OCU-400_UE365	4 mW/sr	20 mA	120	https://www.epigap-osa.com/datasheet/OCU-400_UE365.pdf
UV-A	375	OCU-400_UC375	2.1 mW/sr	20 mA	120	https://www.epigap-osa.com/datasheet/OCU-400_UC375.pdf
UV-A	380	OCU-400_UD380	3.4 mW/sr	20 mA	120	https://www.epigap-osa.com/datasheet/OCU-400_UD380.pdf
UV-A	390	OCU-400_UE390	6 mW/sr	20 mA	120	https://www.epigap-osa.com/datasheet/OCU-400_UE390.pdf
UV-A	400	OCU-400_UE400	6 mW/sr	20 mA	120	https://www.epigap-osa.com/datasheet/OCU-400_UE400.pdf

Compact UV LEDs offer space-saving, energy-efficient solutions with a long lifespan, ideal for portable devices and applications requiring precise UV light in tight spaces.

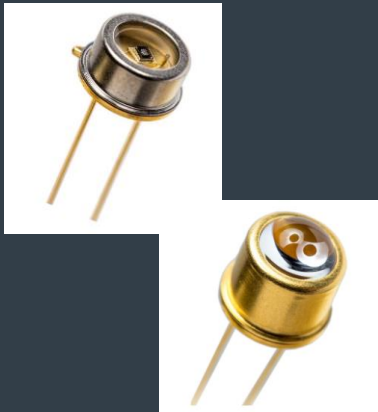
3-5mm THT LEDs



WL	λ c-Typ	Case	Lens	PN	Output	Test Current	View Angle	Datasheets:
UV-A	355	5mm	with lens	EOLD-355-525	1 mW	20 mA	15	https://www.epigap-osa.com/datasheet/EOLD-355-525.pdf
UV-A	365	5mm	with lens	EOLD-365-525	5 mW	20 mA	20	https://www.epigap-osa.com/datasheet/EOLD-365-525.pdf
UV-A	375	5mm	with lens	EOLD-375-525	14 mW	20 mA	15	https://www.epigap-osa.com/datasheet/EOLD-375-525.pdf
UV-A	375	5mm	with lens	EOLD-375-545_HP	20 mW	20 mA	40	https://www.epigap-osa.com/datasheet/EOLD-375-545_HP.pdf
UV-A	385	5mm	with lens	EOLD-385-535	2 mW	20 mA	30	https://www.epigap-osa.com/datasheet/EOLD-385-535.pdf
UV-A	400	5mm	with lens	EOLD-400-535	14 mW	20 mA	30	https://www.epigap-osa.com/datasheet/EOLD-400-535.pdf
UV-A	400	5mm	with lens	EOLD-400-545_HP	29 mW	20 mA	40	https://www.epigap-osa.com/datasheet/EOLD-400-545_HP.pdf
UV-A	400	3mm	with lens	EOLD-400-334	25 mW	20 mA	30	https://www.epigap-osa.com/datasheet/EOLD-400-334.pdf

Compact UV-A LEDs in 3-5mm THT form factor provide an efficient, durable, and space-saving solution for applications requiring reliable UV light emission, with easy integration into through-hole technology for versatile designs.

UV LEDs in TO-Cans

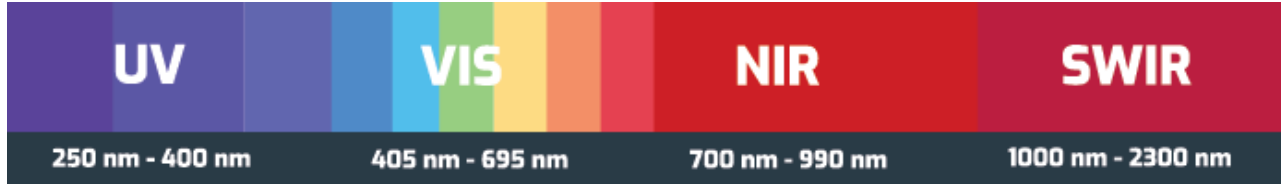


WL	λc-Typ	Case	Lens	PN	Output	Test Current	View Angle	
UV-C	255	TO-46	with lens	EOLD-255-012	1 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-255-012.pdf
UV-C	255	TO-46		EOLD-255-092	1.25 mW	20 mA	100	https://www.epigap-osa.com/datasheet/EOLD-255-092.pdf
UV-C	265	TO-46	with lens	EOLD-265-012	1.1 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-265-012.pdf
UV-C	265	TO-46		EOLD-265-092	1.35 mW	20 mA	100	https://www.epigap-osa.com/datasheet/EOLD-265-092.pdf
UV-C	275	TO-46	with lens	EOLD-275-012	1.6 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-275-012.pdf
UV-C	275	TO-46		EOLD-275-092	2.2 mW	20 mA	100	https://www.epigap-osa.com/datasheet/EOLD-275-092.pdf
UV-B	308	TO-46	with lens	EOLD-308-012	2 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-308-012.pdf
UV-B	310	TO-46	with lens	EOLD-310-013	0.9 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-310-013.pdf
UV-B	310	TO-18	with lens	EOLD-310-023	0.6 mW	20 mA	24	https://www.epigap-osa.com/datasheet/EOLD-310-023.pdf
UV-B	310	TO-18		EOLD-310-093	0.7 mW	20 mA	110	https://www.epigap-osa.com/datasheet/EOLD-310-093.pdf
UV-A	325	TO-46	with lens	EOLD-325-013	1 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-325-013.pdf
UV-A	340	TO-46	with lens	EOLD-340-012	1.3 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-340-012.pdf
UV-A	340	TO-46	with lens	EOLD-340-013	0.9 mW	20 mA	6	https://www.epigap-osa.com/datasheet/EOLD-340-013.pdf
UV-A	340	TO-18	with lens	EOLD-340-023	1.1 mW	20 mA	24	https://www.epigap-osa.com/datasheet/EOLD-340-023.pdf
UV-A	340	TO-18		EOLD-340-093	1.3 mW	20 mA	113	https://www.epigap-osa.com/datasheet/EOLD-340-093.pdf
UV-A	365	TO-46	with lens	EOLD-365-012	1.5 mW	20 mA	10	https://www.epigap-osa.com/datasheet/EOLD-365-012.pdf
UV-A	365	TO-18		EOLD-365-092	1.5 mW	20 mA	90	https://www.epigap-osa.com/datasheet/EOLD-365-092.pdf
UV-A	370	TO-46	with lens	EOLD-370-012	1.2 mW	20 mA	10	https://www.epigap-osa.com/datasheet/EOLD-370-012.pdf

WL	λc-Typ	Case	Lens	PN	Output	Test Current	Viewing Angle	
UV-B	308	TO-39	with lens	EOLD-308-012-1	2 mW	20 mA	4	https://www.epigap-osa.com/datasheet/EOLD-308-012-1.pdf
UV-B	310	TO-39		EOLD-310-093-1	0.8 mW	20 mA	110	https://www.epigap-osa.com/datasheet/EOLD-310-093-1.pdf

The TO-can form factor provides UV LEDs with good thermal management, durability, and ease of integration, making them ideal for high-precision and long-lasting applications in demanding environments.

EPIGAP OSA has a broad portfolio of UV-C to SWIR LEDs



Unique capability of EPIGAP-OSA:

- Flexibility on SMD forms and lenses
- Rapid prototyping
- Exact binning and pre-selection (*Output power, Wavelength, View Angle*)
- Long-Term Stability of performance and supply availability
- Multi-Chip COB assemblies

NEW in 2024: 225 nm UV-C SMD LEDs