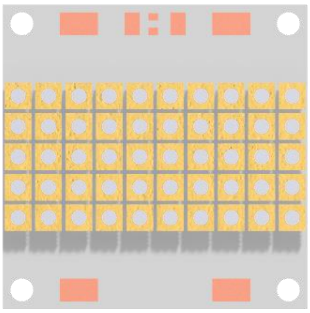
CL5-5X10 DATASHEET

UV-A 365 / 395nm
UV-C 270nm

Revision Date: 28/02/2025



FEATURES

High Power LED

Long Working Life

50,000 hours of use

Aluminum Body

High Energy Savings

Wide llumination Angle

APPLICATION AREAS

UV-A

Ink and Paint Curing

Resin Curing

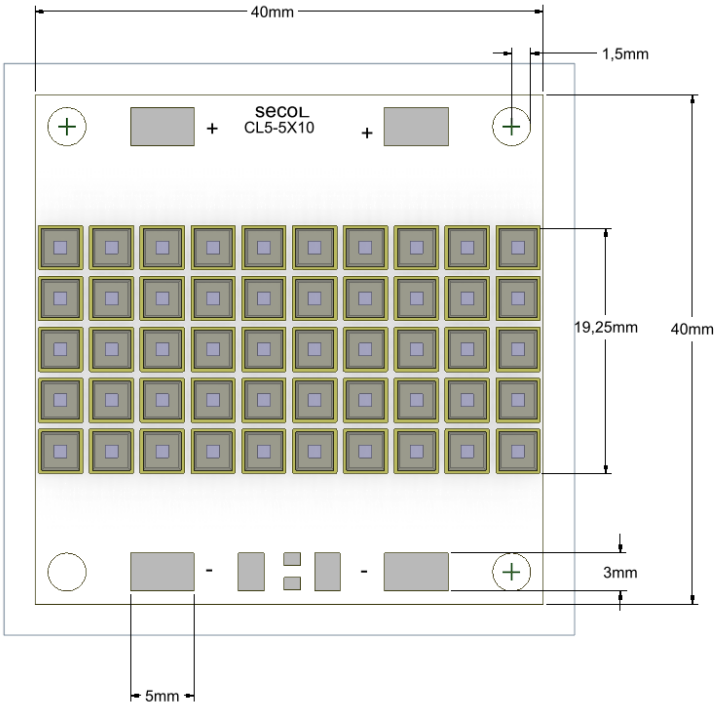
Medical Application

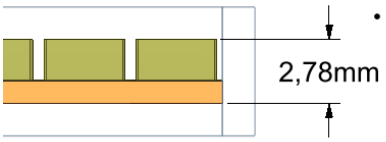
Barcode Reading

UV-C

Disinfection

MECHANICAL DIMENSIONS (mm)





ELECTRICAL PROPERTIES

Initial Optical/Electrical Characteristic
Ta=25˚C (Room Temperature)

1.UV-A.1 365nm

Parameter	Symbol	Condition	Min.	Ort.	Max.	Unit
Operating Voltage	Vf1	If = 10 µA	1,9	--	2,5	V
	Vf2	If = 3,5 A	18,5	19	20,5	V
Reverse Current	Ir	Vr =5 V	--	--	2	µA
Recommended Operating Current	If		--	3500	4000	mA
Wavelength	CCT	If =3,5A	362,5	365	367,5	nm

2.UV-A.2 395nm

Parameter	Symbol	Condition	Min.	Ort.	Max.	Unit
Operating Voltage	Vf1	If = 10 µA	1,9	--	2,5	V
	Vf2	If = 3,5 A	14	16	17	V
Reverse Current	Ir	Vr =5 V	--	--	2	µA
Recommended Operating Current	If		--	3500	4000	mA
Wavelength	CCT	If =3,5A	392,5	395	397,5	nm

3.UV-C 270nm

Parameter	Symbol	Condition	Min.	Ort.	Max.	Unit
Operating Voltage	Vf1	If = 10 µA	1,9	--	2,5	V
	Vf2	If = 1,5 A	25,5	26,5	28,5	V
Reverse Current	Ir	Vr =5 V	--	--	2	µA
Recommended Operating Current	If		1200	1500	1750	mA
Wavelength	CCT	If =1,5A	260	270	280	nm

*Please contact us for your special requests.

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UV-C 270nm

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Absolute Maximum Ratings
Ta: 25˚C (Room Temperature)

1.UV-A.1 365nm

Parameter	Symbol	Condition	Değer	Unit
DC Operating Current	If	Ta: 25 ˚C	≤3500	mA
Reverse Voltage	Vr	Ta: 25 ˚C	≤ 5	V
Storage Temperature	Tstg		-40 ~ 85	˚C
Operating Temperature	Topr		-40 ~ 85	˚C
Soldering Terms*	Tsol	≤ 10 saniye	≤ 260	˚C

2.UV-A.2 395nm

Parameter	Symbol	Condition	Değer	Unit
DC Operating Current	If	Ta: 25 ˚C	≤3500	mA
Reverse Voltage	Vr	Ta: 25 ˚C	≤ 5	V
Storage Temperature	Tstg		-40 ~ 85	˚C
Operating Temperature	Topr		-40 ~ 85	˚C
Soldering Terms*	Tsol	≤ 10 saniye	≤ 260	˚C

3.UV-C 270nm

Parameter	Symbol	Condition	Değer	Unit
DC Operating Current	If	Ta: 25 ˚C	≤1500	mA
Reverse Voltage	Vr	Ta: 25 ˚C	≤ 5	V
Storage Temperature	Tstg		-40 ~ 85	˚C
Operating Temperature	Topr		-40 ~ 85	˚C
Soldering Terms*	Tsol	≤ 10 saniye	≤ 260	˚C

* Our products are suitable for SMD Pick and Place and reflow soldering. We can not guarenteethe results for manual soldering and different temperatures.

SOLDERING

*This LED uses a silicone resin fort he encapsulating resin frame or resin area. If excess pressure is applied to the silicone resin, it may cause the wire to break causing a catastrophic failure.

*Repairing should not be done after the LEDs have been soldered. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be daaged by repairing.

*When soldering, do not apply stress to the LED while the LED is hot.

*When flux is use, it should be a halogen free flux. Ensure that the manufacturing process is not designed in a manner where the flux will come in contact with LEDs.

*During and after soldering an electric wire to the electrode, ensure that tension is not applied to the electric wire. This may cause the electrode to be damaged and reduce the adhesive strength of the electrode to the package.

CAUTIONS

*The circuit must be designed to ensure that the Absolute Maximum Ratings are not exceed for each LED. The LEDs should be operated at a constant current per LED. In the case of operating at a constant voltage, serial connection is recommended. If shunt connection is used, it may cause the currents flowing through the LEDs to vary due to the variation in the forward voltage characterictics of the LEDs on the circuit.

*This LED is designed to be operated at a forward current. Ensure that no voltage is applied to the LED in the forward/reverse direction while the LED is off. If the LEDs are used in an environment where reverse voltages are applied to the LED continuously, it may cause electrochemical migration to occur causing the LED to be damaged. When not in us efor a long period of time, the system's power should be turned off to ensure that there are no isseues.

*When using the LEDs with a dimmer, the color may vary depending on the current through the LED, it is recommended to operate the LED with PWM to minimize this issue.

*If the LEDs are used for outdoor applications, ensure taht necessary measures are taken.

ELECTROSTATIC DISCHARGE (ESD)

*This LED is sensitive to transient excessive voltages. If this excessive voltage occurs in the circuit, it may cause the LED to be damaged cauisng issued. Ensure that when handling the LEDs, necessary measures are taken to protect them from an ESD discharge.

*Ensure that all necessary measures are taken to prevent the LEDs from being exposed to transient excessive voltages.

*If the tool used is an insulator, ensure that necessary measures have been taken to protect the LED from transient excessive voltages.