LITEON

Meet future, LITEON your life

Ultraviolet LED

Ultraviolet LED

LITEON is the leading global provider of optoelectronic components, offering broad portfolio of UV LEDs and photo-catalyst for purified application. Our UV products are qualified by third party inspection certification to prove 99.99% antibacterial activity. Our manufacturing facilities are ISO TS-16949 certified, ensuring the highest levels of quality and service to our customers.

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Creating infinite possibilities for a bright future

LITEON is the leading global provider of optoelectronic components, with a comprehensive portfolio ranging from Visible LEDs, LED Numeric Displays, and Invisible Infrared Emitting and Detecting Components, Optical Sensors, Photocouplers and UV LEDs.

Offering one of the industry's broadest product portfolios, LITEON's optoelectronic based product solutions are used in a wide variety of applications covering various segments of the computer, communications, consumer, and industrial.

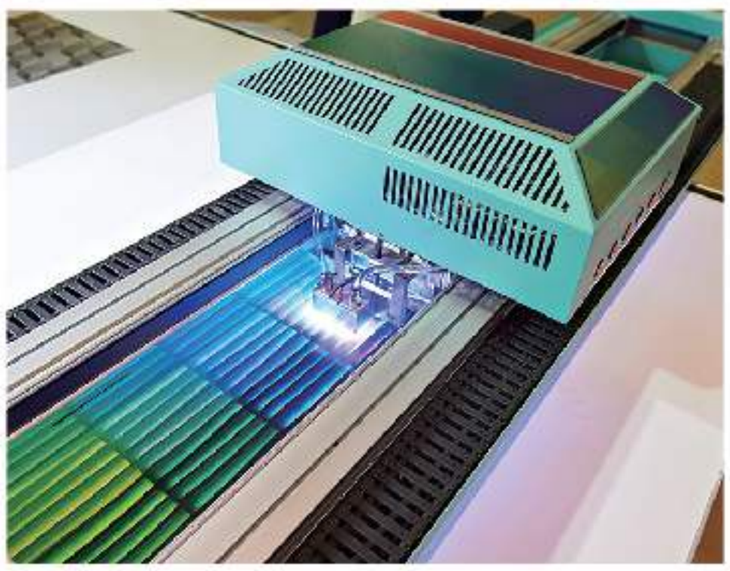
With a clear vision to be **"**Best Partner in Optoelectronic, Eco-Friendly and Intelligent Technologies**"**, we are driven to create extraordinary value and competitive advantage for our customers through innovative technology, superior flexibility manufacturing capabilities and professional services.

Together, we work to enrich lives and shape the future!

For more information, please visit us online at www.liteon.com/opto

Products & Solutions

UVA Banknote Counter	UVA Photocatalyst	UVA Industrial Curing	UVB Biologically Lighting
 LTPL-K28UVM	 LTPL-C034UVE	 LTPL-C036UVE	 LTPL-G35UVB308GM
 LTPL-C16UVE	 LTPL-C034UVG	 LTPL-C036UVG	 LTPL-G35UVB308GH
 LTPF-R6060PSC	 LTPL-S35UVG	 LTPL-V35UV308DH	
		 LTPL-V35UV308FH	



UVC
Sterilization & Disinfection

LTPL-F16UV275S

LTPL-T35UV275GR-E

LTPL-G06UV275GX

LTPL-F16UV275C

LTPL-G35UVC275GM

LTPL-V35UV275DH

LTPL-G35UVC275GS

LTPL-G35UVC275GH

LTPL-V35UV275FH

LTPL-G35UV275GC-E

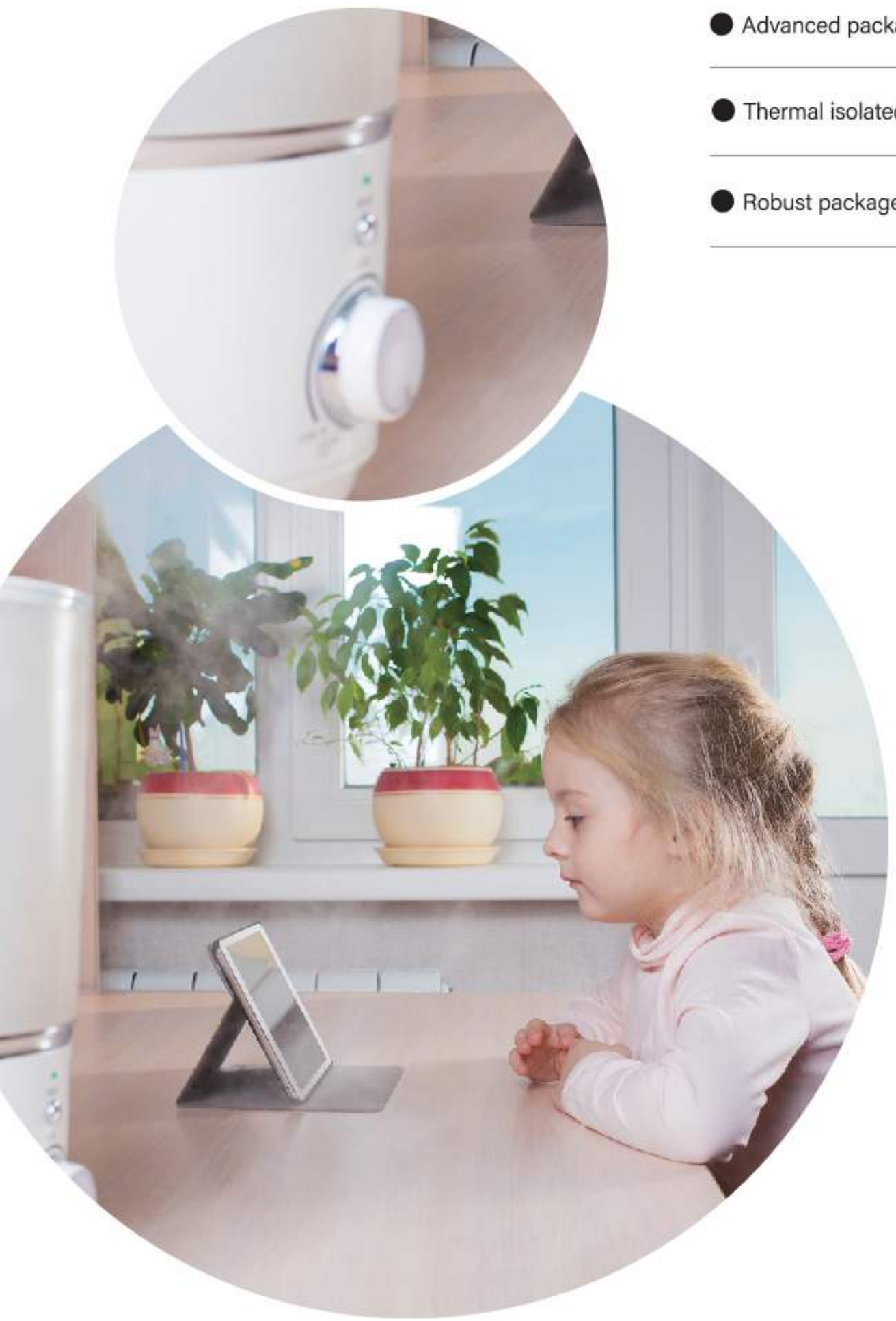
LTPL-W35UV275

LTPL-G35UV275GR-E

LTPL-X06UV275

Clean Technology for Air Purified: Ultraviolet A + Photo-Catalyst

Benefit of Photo-catalyst are suitable for manifold applications due to their potential application for decomposing a great variety of substances and materials in the air. Photo-catalyst are able to kill bacteria cells and to clean the air. On the deodorizing application, the hydroxyl radicals accelerate the breakdown of any Volatile Organic Compounds by destroying the molecular bonds. This will help combine the organic gases to form a single molecule that is not harmful to humans thus enhance the air cleaning efficiency.



LITEON Ultraviolet A LED Solution

- Leadership of the UVA + photo-catalyst technology
- Advanced package solution to provide best lifetime performance
- Thermal isolated and great package design for low thermal resistance
- Robust package design with 2kV ESD protection

Middle Power UVA LED

Part No.	LTPL-C034UVE
Dimension in mm	3.45x3.45x2.13
Output Power in 365nm	630mW
Typ. Forward Current IF	350mA
Forward Voltage VF	3.7V
Peak Wavelength Wp	365-430nm
View Angle	130°

High Power UVA LED

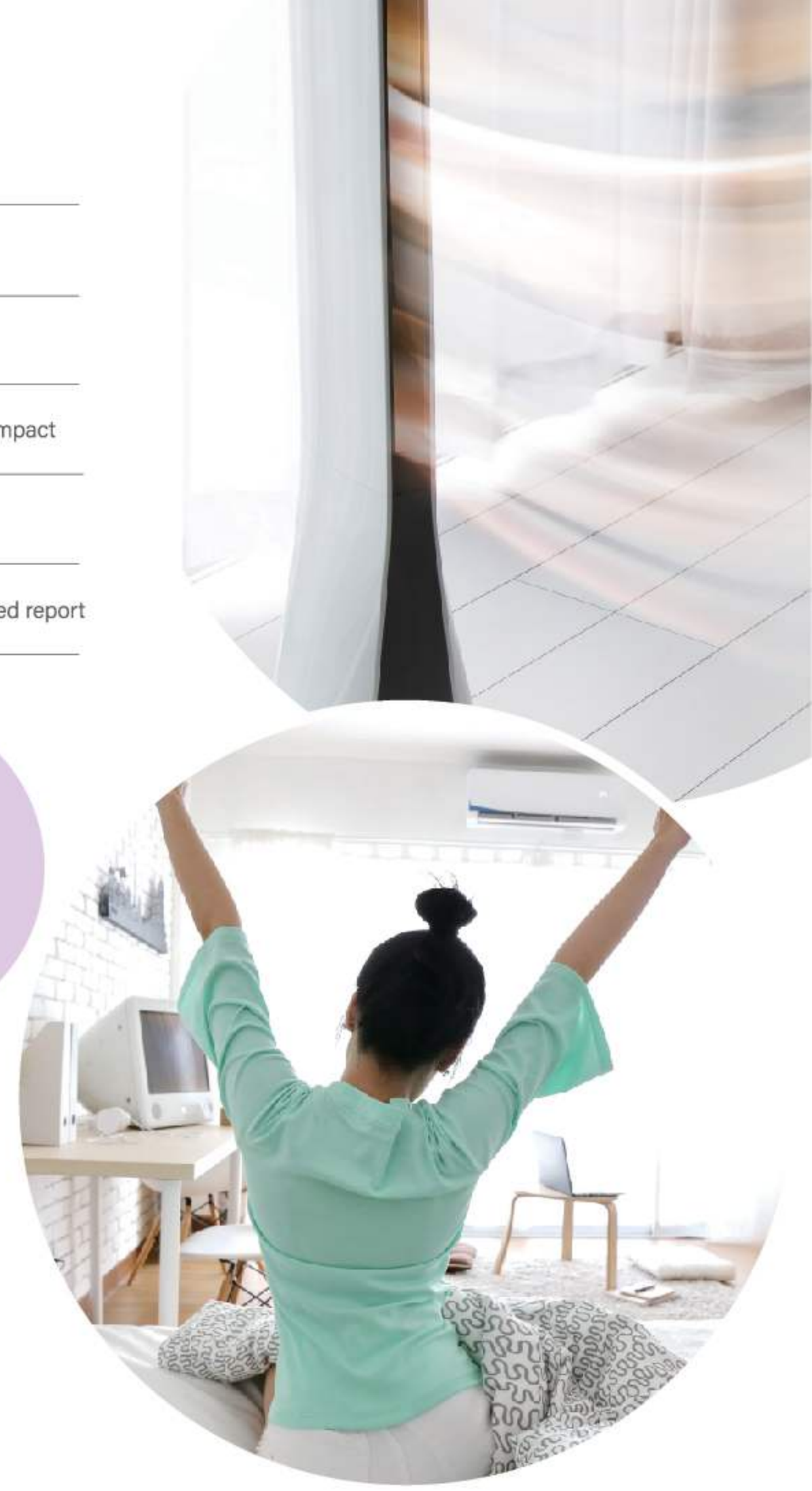
Part No.	LTPL-C034UVG
Dimension in mm	3.45x3.45x2.13
Output Power in 365nm	1340mW
Typ. Forward Current IF	700mA
Forward Voltage VF	3.7V
Peak Wavelength Wp	365-430nm
View Angle	130°

Ultraviolet A LED solutions for Photo-catalyst

- Does not deteriorate and has a long-term anti-bacterial effect
- Super oxidative and hydrophilic to provide clean environment
- To react without harmful substances in the environment
- Clean technology without chemical purification to minimize environment impact
- Easy cleaning to make photo-catalyst recycled
- Third party inspection certification provides proof 99% antibacterial qualified report

Photocatalyst

Part No.	LTPF-R6060PSC
Dimension in mm	60x60x10
Porosity	85%
Edge Porosity	60%
Operation Temperature	200°C



Industrial Curing Applications : Ultraviolet A

UV curing is a process in which ultraviolet light is used to initiate a photochemical reaction that generates a crosslinked network of polymers. UV Curing is adaptable to printing, coating, decorating, stereo-lithography and assembling of a variety of products and materials owing to some of its key attributes. Much quicker and more efficient than traditional baking methods, and also offer significant energy savings without producing any hazardous byproducts.

LITEON compact LED solutions for Ultraviolet A

- High intensity UVLED to create a photochemical reaction
- Advanced thermal management and package solution to provide the highest quality and reliability
- Can be cycled on and off frequently as required and provide longer lifetime
- Full wavelength and suitable dimension for flexible design
- High power intensity can be readied for process by high speed curing

Low Power UVA

Part No.	LTPL-K28UVM
Dimension in mm	2.8x3.6x0.65
Output Power in 385nm	20mW
Typ. Forward Current IF	20mA
Forward Voltage VF	3.5V
Peak Wavelength Wp	385-430nm
View Angle	120°

Middle Power UVA

Part No.	LTPL-C16UVE
Dimension in mm	1.6x1.6x0.8
Output Power in 365nm	340mW
Typ. Forward Current IF	350mA
Forward Voltage VF	3.7V
Peak Wavelength Wp	365-430nm
View Angle	135°

Middle Power UVA

Part No.	LTPL-C036UVE
Dimension in mm	3.45x3.45x3.15
Output Power in 365nm	535mW
Typ. Forward Current IF	350mA
Forward Voltage VF	3.7V
Peak Wavelength Wp	365-430nm
View Angle	30°

High Power UVA

Part No.	LTPL-C036UVG
Dimension in mm	3.45x3.45x3.15
Output Power in 365nm	1140mW
Typ. Forward Current IF	700mA
Forward Voltage VF	3.7V
Peak Wavelength Wp	365-430nm
View Angle	55°

Ultra High Power UVA

Part No.	LTPL-S35UVG
Dimension in mm	3.45x3.45x2.75
Output Power in 365nm	1500mW
Typ. Forward Current IF	1000mA
Forward Voltage VF	4.0V
Peak Wavelength Wp	365-430nm
View Angle	60°

Biologically Effective Light : Ultraviolet B

UVB LED emit a spectrum of ultraviolet light with wavelengths ranging from 280—320 nanometers. This spectrum is also commonly called the biological spectrum due to the human body's sensitivity to light of such a wavelength. UVB light are most effective and proven for treatment of skin diseases the most effective lamps currently available for the treatment of Psoriasis and Vitiligo, as well as other less common skin diseases.

LITEON compact LED solutions for Ultraviolet B

- Excellent humidity protection with quartz lens for best lifetime performance
- Advanced thermal management and package solution to provide the highest quality and reliability
- High power intensity at high temperature operation
- Low thermal resistance and high operating current for flexible design
- Robust package design with 2kV ESD protection

Middle Power UVB

Part No.	LTPL-G35UVB308GM
Dimension in mm	3.5x3.5x1.78
Output Power	30mW
Typ. Forward Current IF	250mA
Forward Voltage VF	5.7V
Peak Wavelength Wp	308nm
View Angle	120°

High Power UVB

Part No.	LTPL-G35UVB308GH
Dimension in mm	3.5x3.5x1.78
Output Power	62mW
Typ. Forward Current IF	600mA
Forward Voltage VF	6.2V
Peak Wavelength Wp	308nm
View Angle	120°

High Power Density UVB

Part No.	LTPL-V35UV308DH
Dimension in mm	3.5x3.5x3.78
Output Power	60mW
Typ. Forward Current IF	600mA
Forward Voltage VF	6.2V
Peak Wavelength Wp	308nm
View Angle	35°

High Power Density UVB

Part No.	LTPL-V35UV308FH
Dimension in mm	3.5x3.5x3.07
Output Power	60mW
Typ. Forward Current IF	600mA
Forward Voltage VF	6.2V
Peak Wavelength Wp	308nm
View Angle	60°

Sterilization & Disinfection: Ultraviolet C

There are many industries where surface disinfection without the use of chemicals is critical and UV light sterilization can provide a safe, effective solution. UVC light for disinfection, decontamination, sterilization and sanitization processes. UVC light, also known as shortwave or germicidal UV light will kill organisms such as bacteria, yeasts and fungi in seconds without the need for chemicals.

LITEON compact LED solutions for Ultraviolet C

- Excellent humidity protection with quartz lens for best lifetime performance
- Advanced thermal management and package solution to provide the highest quality and reliability
- Third party inspection certification provides proof 99.99% antibacterial qualified report
- IP58, electronic component highest level report qualified by third party
- Robust package design with 2kV ESD protection

Low Power UVC

Part No.	LTPL-F16UV275S
Dimension in mm	1.6x1.6x0.76
Output Power	3.0mW
Typ. Forward Current IF	20mA
Forward Voltage VF	6.0V
Peak Wavelength Wp	275nm
View Angle	120°

Low Power UVC

Part No.	LTPL-G35UVC275GS
Dimension in mm	3.5x3.5x1.78
Output Power	4.5mW
Typ. Forward Current IF	40mA
Forward Voltage VF	6.0V
Peak Wavelength Wp	275nm
View Angle	120°

Middle Power UVC

Part No.	LTPL-F16UV275C
Dimension in mm	1.6x1.6x0.76
Output Power	15mW
Typ. Forward Current IF	100mA
Forward Voltage VF	6.0V
Peak Wavelength Wp	275nm
View Angle	120°

Middle Power UVC

Part No.	LTPL-G35UV275GC-E	LTPL-G35UV275GR-E	LTPL-G35UVC275GM	LTPL-T35UV275GR-E
Dimension in mm	3.5x3.5x1.78	3.5x3.5x1.78	3.5x3.5x1.78	3.5x3.5x1.78
Output Power	12mW	21mW	40mW	21mW
Typ. Forward Current IF	100mA	180mA	300mA	180mA
Forward Voltage VF	6.0V	6.0V	6.0V	6.0V
Peak Wavelength Wp	275nm	275nm	275nm	275nm
View Angle	120°	120°	120°	120°

Note : T35 is 3 soldering pads design for electric - thermal isolation.

High Power

Part No.	LTPL-G35UVC275GH
Dimension in mm	3.5x3.5x1.78
Output Power	72mW
Typ. Forward Current IF	600mA
Forward Voltage VF	6.7V
Peak Wavelength Wp	275nm
View Angle	120°

High Power

Part No.	LTPL-G06UV275GX
Dimension in mm	6.0x6.0x1.35
Output Power	80mW
Typ. Forward Current IF	750mA
Forward Voltage VF	6.0V
Peak Wavelength Wp	275nm
View Angle	120°

High Power Density UVC

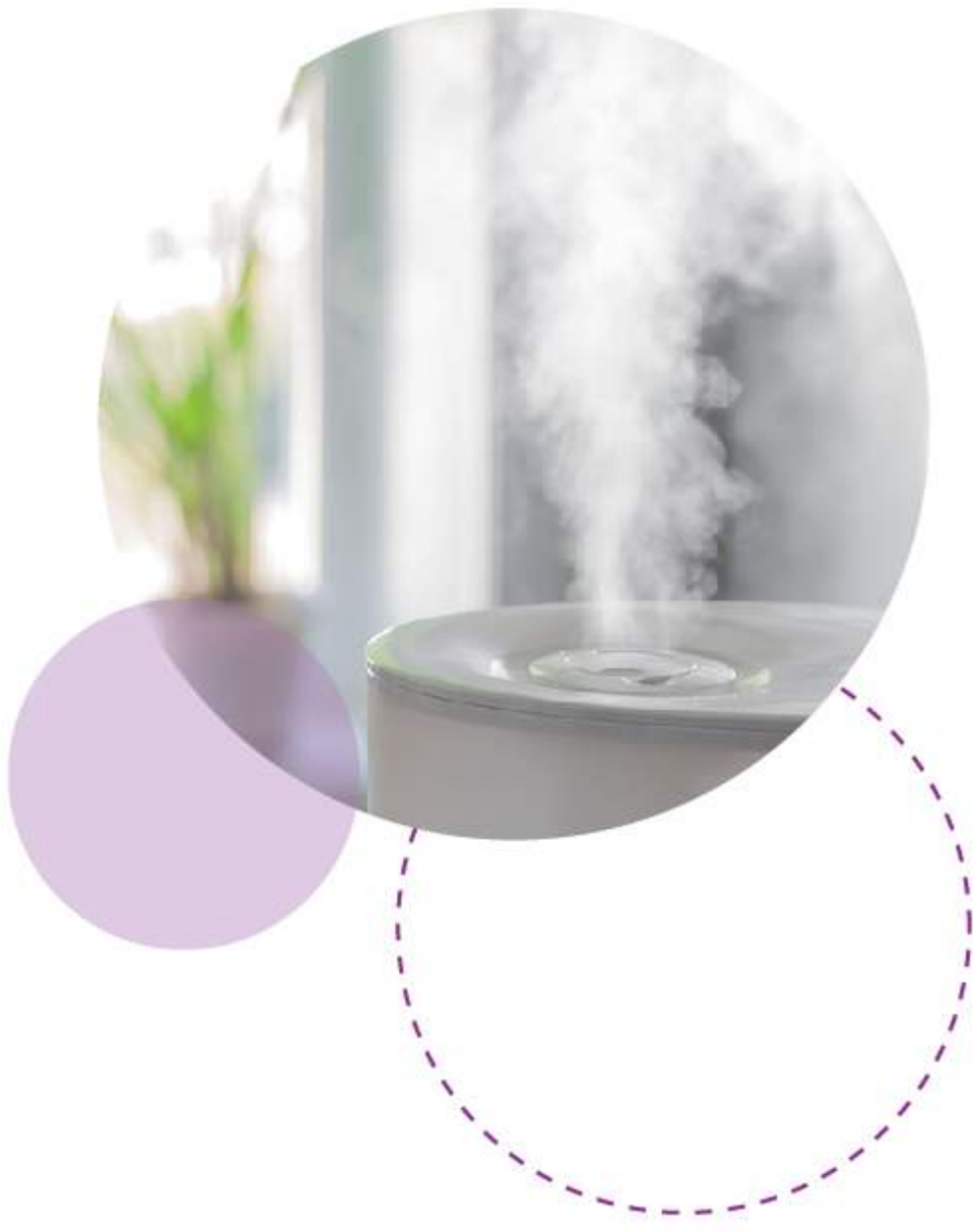
Part No.	LTPL-V35UV275DH	LTPL-V35UV275FH
Dimension in mm	3.5x3.5x3.78	3.5x3.5x3.07
Output Power	68mW	70mW
Typ. Forward Current IF	600mA	600mA
Forward Voltage VF	6.7V	6.7V
Peak Wavelength Wp	275nm	275nm
View Angle	35°	60°

High Power Density UVC

Part No.	LTPL-W35UV275
Dimension in mm	3.5x3.5x2.3
Output Power	150mW
Typ. Forward Current IF	600mA
Forward Voltage VF	6.7V
Peak Wavelength Wp	275nm
View Angle	160°

High Power Density UVC

Part No.	LTPL-X06UV275
Dimension in mm	6.0x6.0x3.35
Output Power	160mW
Typ. Forward Current IF	700mA
Forward Voltage VF	12.6V
Peak Wavelength Wp	275nm
View Angle	50°



Product List

UVA

Low Power UVA: K28

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-K28UVM385	20	3.3	20	385	120	40	100
LTPL-K28UVM395	21	3.2	20	395	120	40	100
LTPL-K28UVM405	22	3.1	20	405	120	40	100
LTPL-K28UVM430	22	3.1	20	430	120	40	100

Middle Power UVA: C16

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-C16UVE365	340	3.7	350	365	120	500	120
LTPL-C16UVE385	410	3.7	350	385	120	500	120
LTPL-C16UVE395	420	3.7	350	395	120	500	120
LTPL-C16UVE405	440	3.6	350	405	120	500	120
LTPL-C16UVE430	440	3.6	350	430	120	500	120

Middle/High Power UVA: C034

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-C034UVE365	630	3.7	350	365	130	500	120
LTPL-C034UVE385	760	3.7	350	385	130	500	120
LTPL-C034UVE395	780	3.7	350	395	130	500	120
LTPL-C034UVE405	810	3.6	350	405	130	500	120
LTPL-C034UVE430	810	3.6	350	430	130	500	120
LTPL-C034UVG365	1340	3.7	700	365	130	1000	120
LTPL-C034UVG385	1400	3.7	700	385	130	1000	120
LTPL-C034UVG395	1425	3.7	700	395	130	1000	120
LTPL-C034UVG405	1455	3.6	700	405	130	1000	120
LTPL-C034UVG430	1455	3.6	700	430	130	1000	120

Middle/High Power UVA: C036

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-C036UVE365	535	3.7	350	365	30	500	120
LTPL-C036UVE385	660	3.7	350	385	30	500	120
LTPL-C036UVE395	670	3.7	350	395	30	500	120
LTPL-C036UVE405	690	3.6	350	405	30	500	120
LTPL-C036UVE430	690	3.6	350	430	30	500	120
LTPL-C036UVG365	1140	3.7	700	365	55	1000	120
LTPL-C036UVG385	1190	3.7	700	385	55	1000	120
LTPL-C036UVG395	1210	3.7	700	395	55	1000	120
LTPL-C036UVG405	1230	3.6	700	405	55	1000	120
LTPL-C036UVG430	1230	3.6	700	430	55	1000	120

Ultra High Power UVA: S35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-S35UVG365F	1500	4.0	1000	365	60	1500	120
LTPL-S35UVG385F	1560	4.0	1000	385	60	1500	120
LTPL-S35UVG395F	1590	4.0	1000	395	60	1500	120
LTPL-S35UVG405F	1610	3.9	1000	405	60	1500	120
LTPL-S35UVG430F	1610	3.9	1000	430	60	1500	120

UVB

Middle Power UVB: G35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-G35UVB308GM	30	5.7	250	308	120	250	105

High Power UVB: G35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-G35UVB308GH	62	6.2	600	308	120	600	105

High Power Density UVB: V35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-V35UV308DH	60	6.2	600	308	35	600	105
LTPL-V35UV308FH	60	6.2	600	308	60	600	105

UVC

Low Power UVC: F16

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-F16UV275S	3.0	6.0	20	275	120	30	105

Low Power UVC: G35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-G35UVC275GS	4.5	6.0	40	275	120	80	105

Middle Power UVC: F16

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-F16UV275C	13.2	6.5	100	275	120	120	105

Middle Power UVC: G35/ T35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-G35UV275GC-E	12	6.5	100	275	120	150	105
LTPL-G35UV275GR-E	21	6.5	180	275	120	280	105
LTPL-G35UVC275GM	40	6.5	300	275	120	400	105
LTPL-T35UV275GR-E	21	6.5	180	275	120	280	105

UVC

High Power UVC: G35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-G35UVC275GH	72	6.7	600	275	120	800	105

High Power UVC: G06

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-G06UV275GX	80	6.0	750	275	120	1000	105

High Power Density UVC: V35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-V35UV275DH	68	6.7	600	275	35	800	105
LTPL-V35UV275FH	70	6.7	600	275	60	800	105

High Power Density UVC: W35

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-W35UV275	150	6.7	600	275	160	700	105

High Power Density UVC: G06

	Typ. Power (mW)	Forward Current (V)	Forward Current (mA)	Peak Wave length (nm)	View Angle 2θ1/2 (°)	Max Forward Current (mA)	Max. Junction Temp. (°C)
LTPL-X06UV275	160	12.6	700	275	50	1200	105

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