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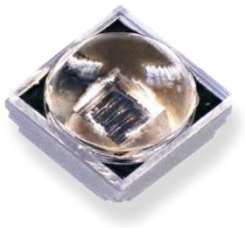
DUVxxx-SD353EL



- **Deep Ultraviolet Light Emission Source**
- **265 - 340 nm**
- **ESD protection**
- **SiO_2 lens**
- **Beam angle 65 deg.**

RoHS COMPLIANT Pb-Free

Description

DUVxxx-SD353EL is a series of **AlGaN** based single emitter **DEEP-UV LEDs** in a 3535 SMD package, is ready for reflow soldering process, and can be delivered on reel. It features an integrated ESD protection device and quartz glass window.

Electro-Optical Characteristics I_F=350mA (T_{CASE} = 25°C)

Parameter	Symbol	DUV265-SD353EL	DUV275-SD353EL	DUV280-SD353EL	DUV295-SD353EL	Unit
Peak Wavelength	λ_P	265 ±5	275 ±5	280 ±5	295 ±5	nm
Radiated Power	P_O	**27**	**36**	**36**	**36**	**mW**
Spectral Width (FWHM)	$\Delta\lambda$	11	11	11	11	nm
Forward Voltage	V_F	6.0	6.0	6.0	6.0	V
Viewing Angle	$2\Theta_{1/2}$	**65**				**deg.**

Parameter	Symbol	DUV308-SD353EL	DUV325-SD353EL	DUV340-SD353EL	/	Unit
Peak Wavelength*	λ_P	308 ±5	325 ±5	340 ±5	/	nm
Radiated Power**	P_O	**54**	**45**	**68**	**/**	**mW**
Spectral Width (FWHM)	$\Delta\lambda$	12	12	9	/	nm
Forward Voltage	V_F	5.6	5.0	5.0	/	V
Viewing Angle	$2\Theta_{1/2}$	**65**				**deg.**

*Peak Wavelength measurement tolerance is ±3nm

**Radiated power measurement tolerance is ±10%

CAUTION

- LEDs emit very strong UV radiation.
- Don't look directly into the LED light.
  UV radiation can harm your eyes.
- To prevent even inadequate exposure, wear protective eyewear.
- If LEDs are embedded in devices, please indicate warning labels against the UV light LED used.
- Keep out of reach of children.
- Specification and dimension are subject to change for improvement without notice.

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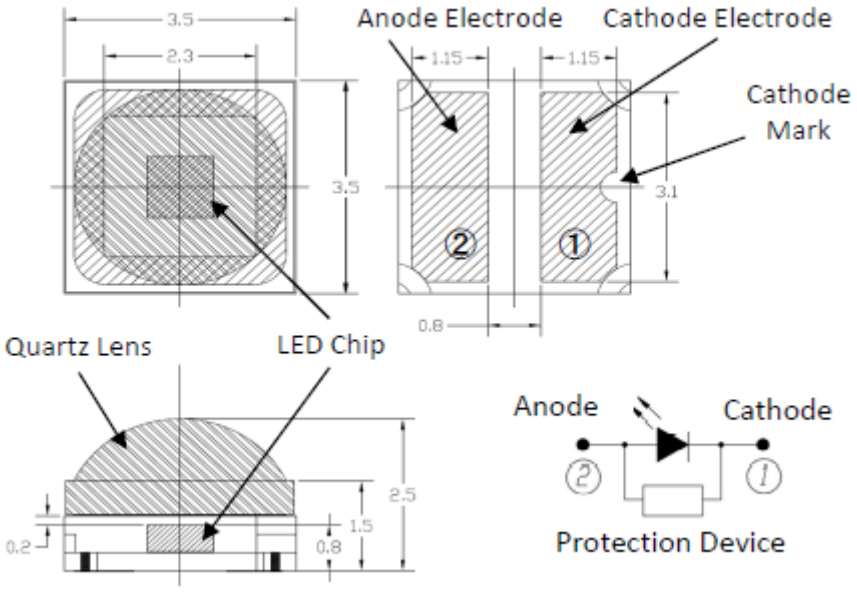
Performance Characteristics

Please refer to the respective **DUVxxx-353E** datasheet for detailed performance characteristics

Outline Dimensions

SMD 3535

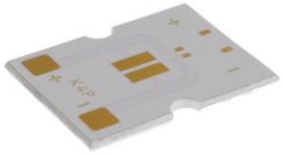


all dimensions in mm

Accessories

SD35-PCB

A printed **Cu circuit board** with Ni finish and **Au contact plates**, designed for easily soldering and mounting the SD35 series LEDs. Ideally suited for **prototyping and evaluation**



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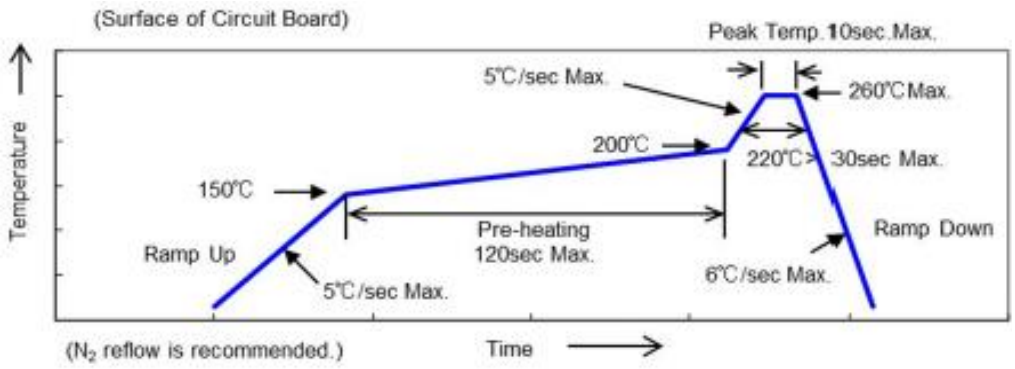
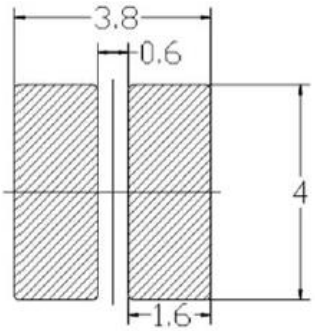
Precautions

Soldering

Reflow soldering profile



Recommended solder pad



all dimensions in mm

Static Electricity

LEDs are sensitive to electrostatic discharge (ESD). Precautions against ESD must be taken when handling or operating these LEDs. Surge voltage or electrostatic discharge can result in complete failure of the device.

UV-Radiation

During operation these LEDs do emit **high intensity ultraviolet light**, which is hazardous to skin and eyes, and may cause cancer. Do avoid exposure to the emitted UV light. **Protective glasses are recommended**. It is further advised to attach a warning label on products/systems that do utilize UV-LEDs:

Static Electricity

Do *only* operate LEDs with a current source.

Running these LEDs from a voltage source *will* result in complete failure of the device.
Current of a LED is an exponential function of the voltage across it. Usage of current regulated drive circuits is mandatory