



ROITHNER LASERTECHNIK GmbH

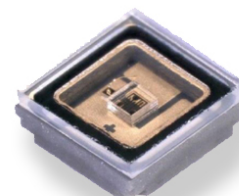
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DUVxxx-SD351

- Deep Ultraviolet Light Emission Source
- 265 - 340 nm
- ESD protection
- Flat SiO₂ window
- Beam angle 120 deg.



Description

DUVxxx-SD351 is a series of **AlGaIn** based single emitter **DEEP-UV LEDs** in a 3535 SMD package, is ready for reflow soldering process, and can be delivered on tape. It features an integrated ESD protection device and quartz glass window. **DUVxxx-SD351** is available from 265 nm up to 340 nm peak wavelength with an optical output power of **typically 12 mW** at a current of **100 mA**

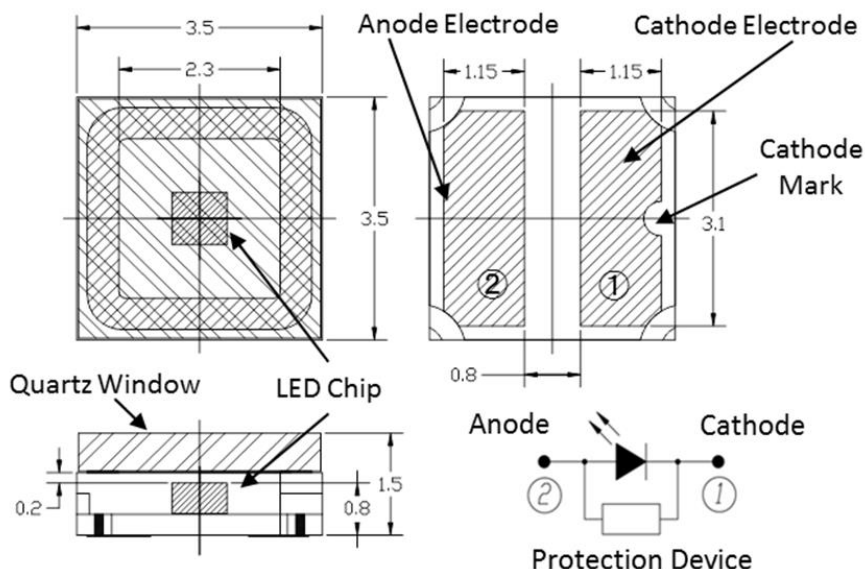
Electro-Optical Characteristics ($T_{CASE} = 25^{\circ}C$, $I_F = 100$ mA)

Parameter	Symbol	DUV265-SD351	DUV275-SD351	DUV280-SD351	DUV310-SD351	DUV325-SD351	DUV340-SD351	Unit
Peak Wavelength*	λ_P	265 \pm 5	275 \pm 5	280 \pm 5	308 \pm 5	325 \pm 5	340 \pm 5	nm
Radiated Power**	P_O	5	12	12	12	12	12	mW
Spectral Width (FWHM)	$\Delta\lambda$	11	11	11	15	13	9	nm
Forward Voltage	V_F	5.2	5.2	5.2	5.3	4.7	4.5	V
Viewing Angle	$2\theta_{1/2}$	120						deg.

*Peak Wavelength measurement tolerance is ± 3 nm, **Radiated power measurement tolerance is $\pm 10\%$

Outline Dimensions

SMD 3535

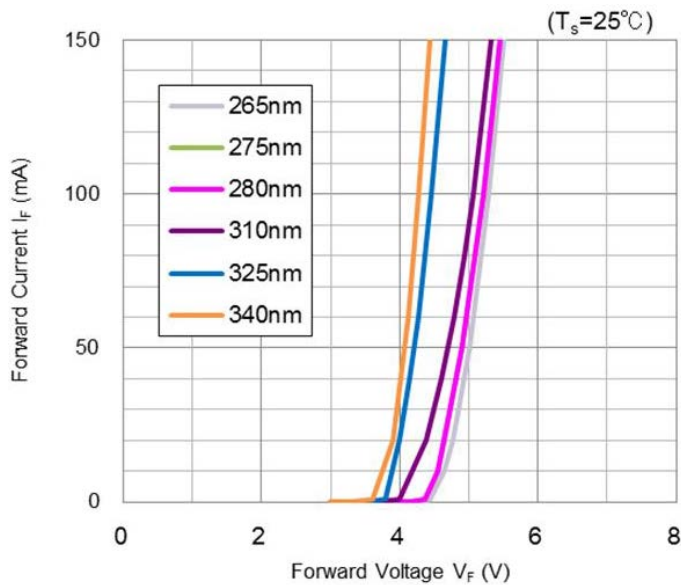


all dimensions in mm

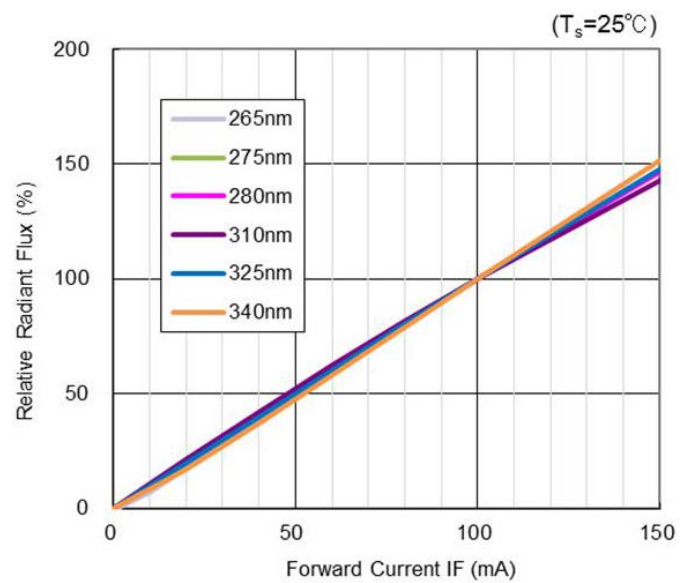


Performance Characteristics

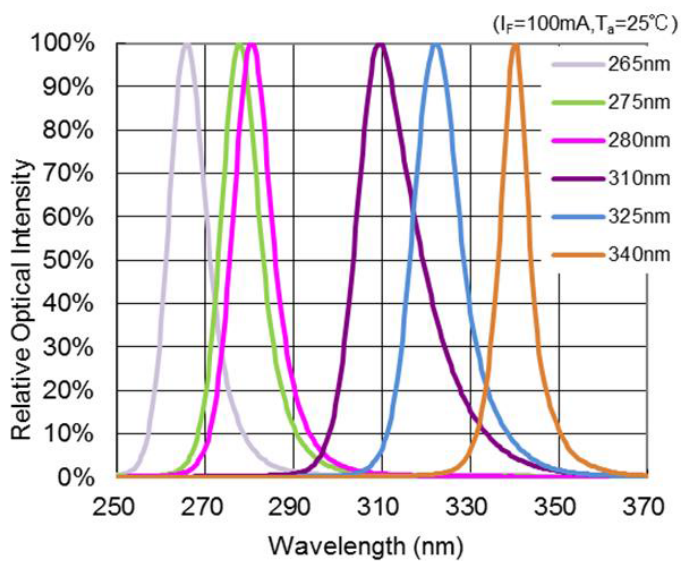
Forward Current vs. Forward Voltage



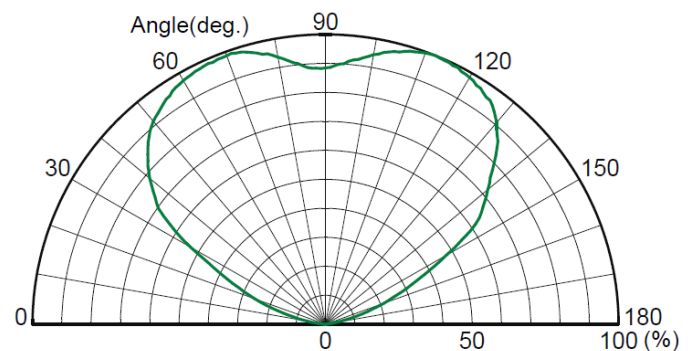
Forward Current vs. Relative Radiant Flux [%]



Spectrum



Radiation Pattern

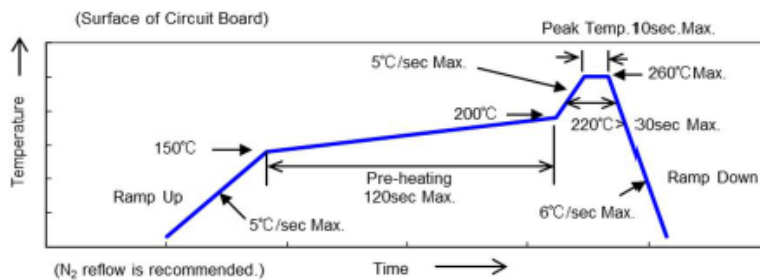




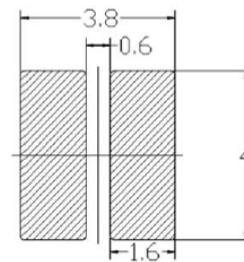
Precautions

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:

	CAUTION
	<ul style="list-style-type: none">• 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.

Operation

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

