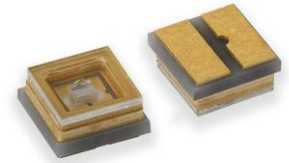




## VLMU35CR40-275-120 and VLMU35CR41-275-120 UVC Emitting Diodes in Ceramic / Quartz-Based Package Combine Typical Radiant Power of 37 mW With a Longer Service Life of 27 000 Hours and a Shorter Typical Wavelength of 274 nm for Higher Disinfection Efficiency

### Product Benefits:

- High typical radiant power of 37 mW at 250 mA
- Wavelength range of 265 nm to 280 nm, with a typical wavelength of 274 nm
- Available in a compact, thermally optimized surface-mount 3.45 mm by 3.45 mm by 1.7 mm package with a ceramic substrate and quartz window
- Long service life of 27 000 hours at 250 mA and 25 °C
- DC forward current up to 300 mA
- Forward voltage down to 5.2 V
- Emission angle of  $\pm 60^\circ$
- RoHS-compliant, halogen-free, and Vishay Green
- Compatible with reflow soldering processes
- Feature a Moisture Sensitivity Level of 3 in accordance with J-STD-020



### Market Applications:

- Direct disinfection of surfaces, air, and static water
- Sterilization devices for ear buds, toothbrushes, water bottles, refrigerators, air purifiers, door handles, medical instruments, coffee machines, ATMs, toilet seats, vacuum cleaners, and more

### The News:

Vishay Intertechnology introduces two new UVC (short wavelength ultraviolet) emitting diodes in a ceramic / quartz-based package for sterilization in medical, industrial, and consumer applications. Compared to previous-generation solutions, the Vishay Semiconductors VLMU35CR40-275-120 and VLMU35CR41-275-120 deliver higher radiant power at a lower cost, while offering higher disinfection efficiency and a longer service life.

- The device's typical radiant power is 30 % higher in terms of mW/\$ performance than lower power emitter diodes and 12x better than previous-generation solutions
- The VLMU35CR41-275-120 provides a minimum radiant power of 30 mW at 250 mA, which is the same as the closest competing device at 350 mA
- Compared to 280 nm solutions, the VLMU35CR40-275-120 and VLMU35CR41-275-120 deliver 20 % higher sterilization efficiency
- Built on AlGaIn technology
- Designed to replace low pressure UVC mercury tubes, especially in compact designs where small components are required



## The Key Specifications:

- Color: Ultraviolet
- Technology: AlGaN
- Minimum radiant power at 250 mA: 27.5 mW (VLMU35CR40-275-120) and 30 mW (VLMU35CR41-275-120)
- Wavelength at 250 mA: 265 nm to 280 nm
- Emission angle:  $\pm 60^\circ$
- Forward voltage at 250 mA: 5.2 V to 7.7 V
- DC forward current: to 300 mA

## Availability:

Samples and production quantities of the new UVC emitting diodes are available now, with lead times of eight to 16 weeks.

To access the product datasheet on the Vishay Website, go to <http://www.vishay.com/ppg?80320> (VLMU35CR40-275-120, VLMU35CR41-275-120)

## Contact Information:

### THE AMERICAS

Mr. Jim Toal  
[jim.toal@vishay.com](mailto:jim.toal@vishay.com)

### EUROPE

Mr. Kai Rottenberger  
[kai.rottenberger@vishay.com](mailto:kai.rottenberger@vishay.com)

### ASIA/PACIFIC

Mr. Jason Soon  
[jason.soon@vishay.com](mailto:jason.soon@vishay.com)