

# PRELIMINARY DATA SHEET: CKA7003C02

## ULTRAVIOLET C LIGHT EMITTING DIODE

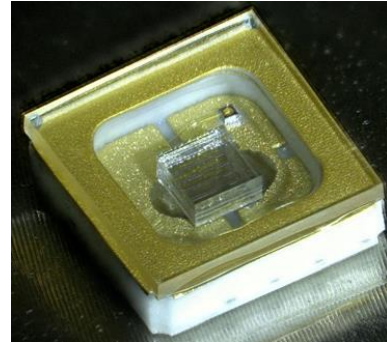


### Features :

- Lighting Color(Peak Wavelength):275nm

### Applications :

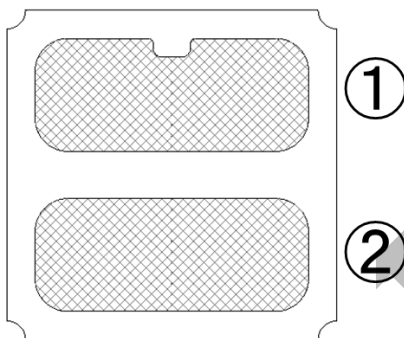
- Disinfection
- Water Clarification
- Air Cleaning
- Deep UV-DVD



### Package :

- Surface Mount Type Ceramic Package

### PIN Configuration :



PIN No.	PIN Name
1	Cathode
2	Anode

### Ordering Information :

Part Number	Order Number	Package	Supplying Form
CKA7003C02	CKA7003C02	Surface Mount Type Ceramic Package	<ul style="list-style-type: none"> <li>• Embossed 12 mm wide</li> <li>• Pin 1 (Cathode) is left side, when the perforation side of tape is upside.</li> <li>• Reel Qty TBD</li> </ul>

# PRELIMINARY DATA SHEET: CKA7003C02



## ULTRAVIOLET C LIGHT EMITTING DIODE

### Absolute Maximum Ratings :

Parameter	Symbol	Rating	Unit
Forward Current	$I_F$	600	mA
Storage Temperature	Tstg	-30~85	°C
Junction Temperature	$T_j$	100	°C

### Electrical and Optical Characteristics :

( $I_F = 350\text{mA}$ ,  $T_A = 25^\circ\text{C}$ )

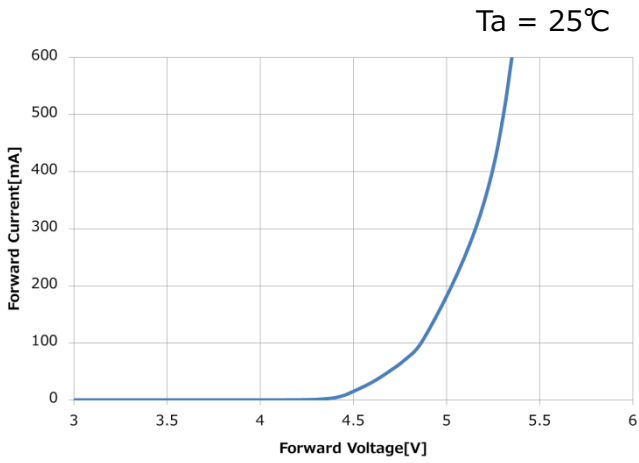
Parameter	Symbol	MIN.	TYP.	MAX.	Unit
Forward Voltage	$V_F$	TBD	5.0	TBD	V
Peak Wavelength	$\lambda_p$	265	275	285	nm
Radiant Flux	$P_O$	TBD	30	-	mW
Spectrum Half Width	$\Delta\lambda$	-	12.0	-	nm
Viewing Angle	$2\theta_{1/2}$		120		deg.
Thermal Resistance, Junction to Solder Point	$R_{j-s}$		16		°C/W

# PRELIMINARY DATA SHEET: CKA7003C02

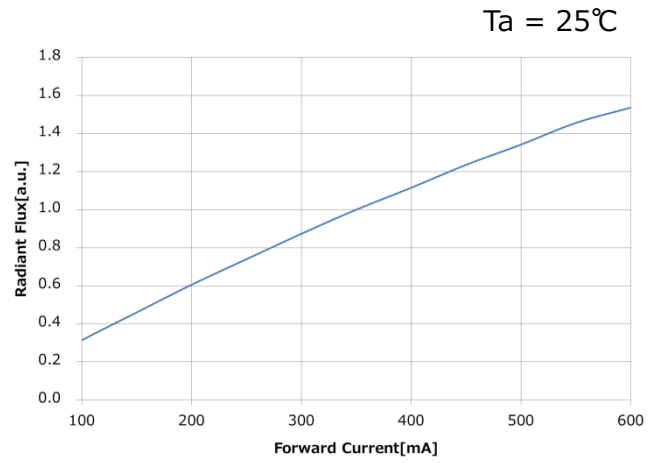


## ULTRAVIOLET C LIGHT EMITTING DIODE

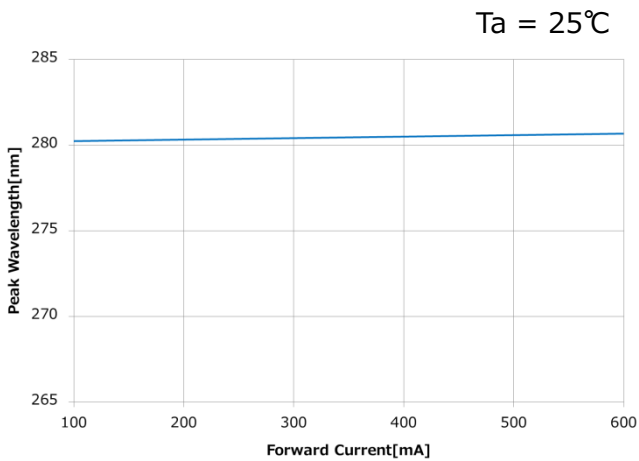
### ■ Forward Current vs. Forward Voltage



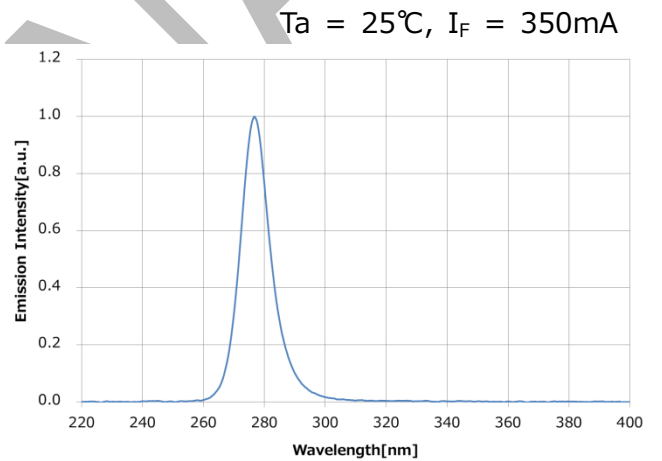
### ■ Relative Radiant Flux vs. Forward Current



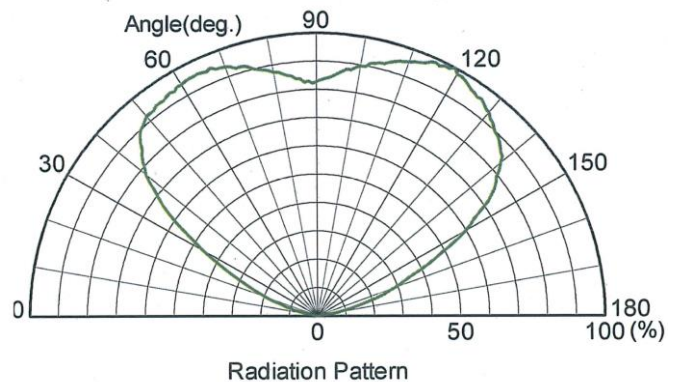
### ■ Peak Wavelength vs. Forward Current



### ■ Spectrum



### ■ Radiation Pattern

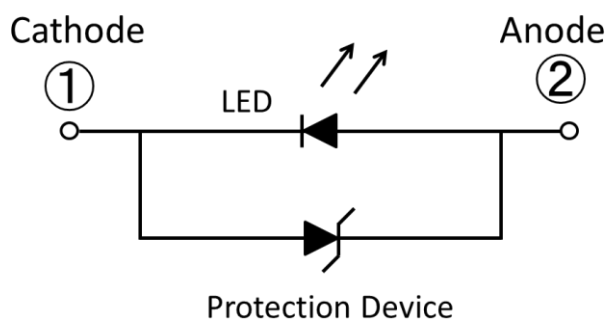


# PRELIMINARY DATA SHEET: CKA7003C02

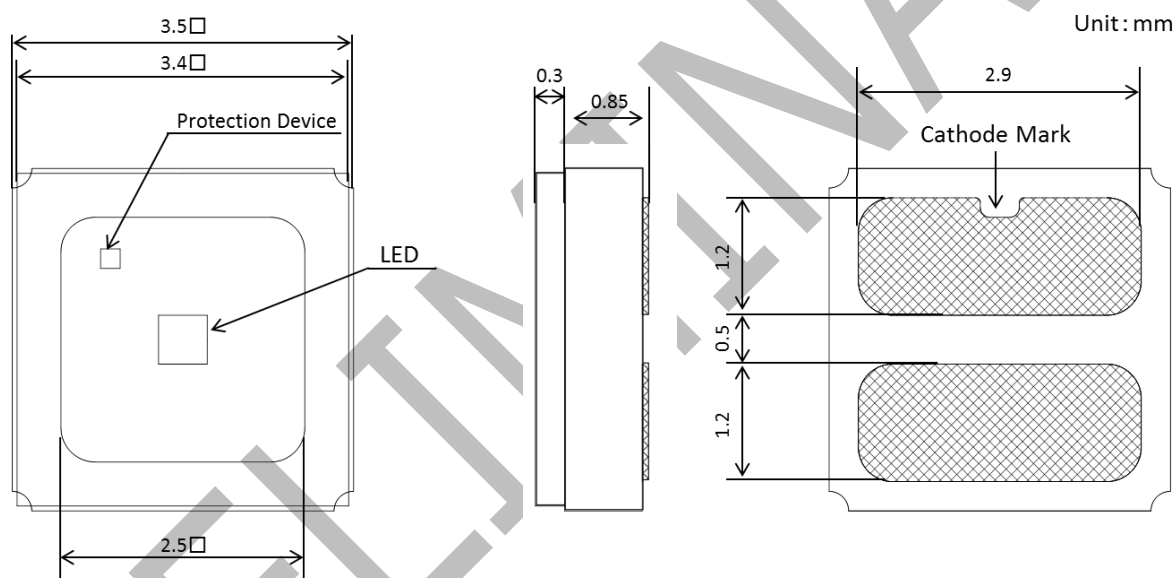


## ULTRAVIOLET C LIGHT EMITTING DIODE

### Internal Circuit :



### Package Dimensions :



### Recommended Soldering Conditions :

Recommended Soldering Conditions are provided on the CDK Web site.

[Original Products] → [UV-C LED] → [Design Support]

URL

<http://www.en.cdk.co.jp/products/highfrequency/rf/uv/uvclcd/designsupport/index.html>

# PRELIMINARY DATA SHEET: CKA7003C02

## ULTRAVIOLET C LIGHT EMITTING DIODE



### [CAUTION]

- All information included in this document is current as of the date this document is issued. Such information, however, is subject to change without any prior notice.
- You should not alter, modify, copy, or otherwise misappropriate any CDK product, whether in whole or in part.
- CDK does not assume any liability for infringement of patents, copyrights, or other intellectual property rights of third parties by or arising from the use of CDK products or technical information described in this document. No license, express, implied or otherwise, is granted hereby under any patents, copyrights or other intellectual property rights of CDK or others.
- Descriptions of circuits, software and other related information in this document are provided only to illustrate the operation of semiconductor products and application examples. You are fully responsible for the incorporation of these circuits, software, and information in the design of your equipment. CDK assumes no responsibility for any losses incurred by you or third parties arising from the use of these circuits, software, or information.
- CDK has used reasonable care in preparing the information included in this document, but CDK does not warrant that such information is error free. CDK assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.
- Although CDK endeavors to improve the quality and reliability of its products, semiconductor products have specific characteristics such as the occurrence of failure at a certain rate and malfunctions under certain use conditions. Please be sure to implement safety measures to guard them against the possibility of physical injury, and injury or damage caused by fire in the event of the failure of a CDK product, such as safety design for hardware and software including but not limited to redundancy, fire control and malfunction prevention, appropriate treatment for aging degradation or any other appropriate measures  
Because the evaluation of microcomputer software alone is very difficult, please evaluate the safety of the final products or system manufactured by you.
- Please use CDK products in compliance with all applicable laws and regulations that regulate the inclusion or use of controlled substances, including without limitation, the EU RoHS Directive.  
CDK assumes no liability for damages or losses occurring as a result of your noncompliance with applicable laws and regulations.
- This document may not be reproduced or duplicated, in any form, in whole or in part, without prior written consent of CDK.
- Please contact a CDK if you have any questions regarding the information contained in this document or CDK products, or if you have any other inquiries.

# PRELIMINARY DATA SHEET: CKA7003C02



## ULTRAVIOLET C LIGHT EMITTING DIODE

---

[CAUTION]

Although this device is designed to be as robust as possible, ESD (Electrostatic Discharge) can damage this device. This device must be protected at all times from ESD. Static charges may easily produce potentials of several kilovolts on the human body or equipment, which can discharge without detection. Industry-standard ESD precautions should be used at all times.

[  CAUTION : Eye Safety Guidelines]

- LEDs emit very strong UV radiation.
- Do not expose to the human body and eyes during the LED light emitting because UV(UVC) light can be bad for human.
- 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.

CHUO DENSHI KOGYO CO., LTD  
3400 Kooyama, Matsubase, Uki-City,  
Kumamoto 869-0512, Japan  
Tel : +81-964-32-2730  
Fax : +81-964-32-3549  
URL : <http://www.en.cdk.co.jp/>

---

Contact info for inquiries  
Electronic Devices Division Sales and Planning Department  
Tel : +81-964-32-2750  
E-mail : [info@cdk.co.jp](mailto:info@cdk.co.jp)  
FAX : +81-964-32-3549

---