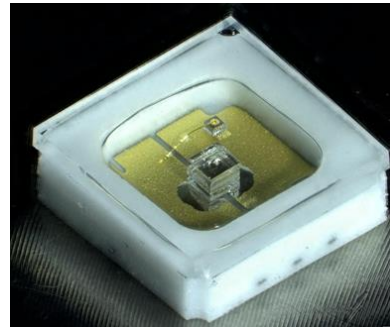


# DATA SHEET: CKA7001C03

## ULTRAVIOLET C LIGHT EMITTING DIODE

### Features :

- Lighting Color(Peak Wavelength):275nm
- 3 to 6.5mW available depending on the current setting



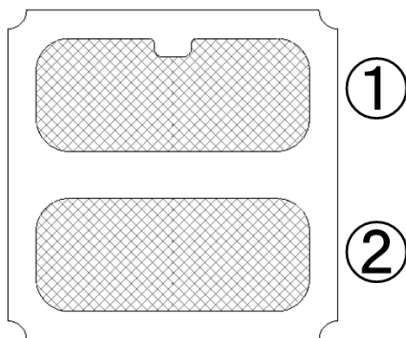
### Applications :

- Disinfection
- Water Clarification
- Air Cleaning

### 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
CKA7001C03	CKA7001C03	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 1,000pcs/reel</li> </ul>

# DATA SHEET: CKA7001C03

## ULTRAVIOLET C LIGHT EMITTING DIODE



### Absolute Maximum Ratings :

Parameter	Symbol	Rating	Unit
Forward Current	$I_F$	50	mA
Storage Temperature	Tstg	-30~85	°C
Junction Temperature	$T_j$	100	°C

### Electrical and Optical Characteristics :

( $I_F = 20\text{mA}$ ,  $T_A = 25^\circ\text{C}$ )

Parameter	Symbol	MIN.	TYP.	MAX.	Unit
Forward Voltage	$V_F$	3.7	5.2	6.8	V
Peak Wavelength	$\lambda_p$	265	275	285	nm
Radiant Flux	$P_O$	2.0	3.0	-	mW
Spectrum Half Width	$\Delta\lambda$	-	12.0	-	nm
Viewing Angle	$2\theta_{1/2}$		120		deg.
Thermal Resistance, Junction to Solder Point	$R_{J-S}$		30		°C/W

Notes:

1. Radiant Flux( $P_o$ ) measurement tolerance is  $\pm 10\%$
2. Peak Wavelength( $\lambda_p$ ) measurement tolerance is  $\pm 3\text{nm}$

### Radiant Flux vs. Forward Current at $T_a = 25^\circ\text{C}$

Forward Current [mA]	MIN. [mW]	TYP. [mW]	MAX, [mW]
20	2.0	3.0	-
30	-	4.0	-
40	-	5.5	-
50	-	6.5	-

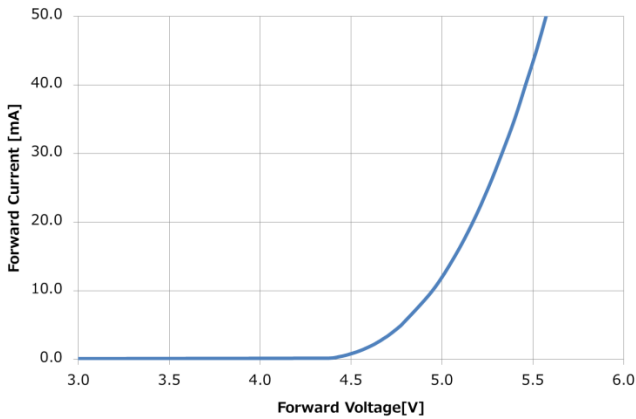
# DATA SHEET: CKA7001C03

## ULTRAVIOLET C LIGHT EMITTING DIODE



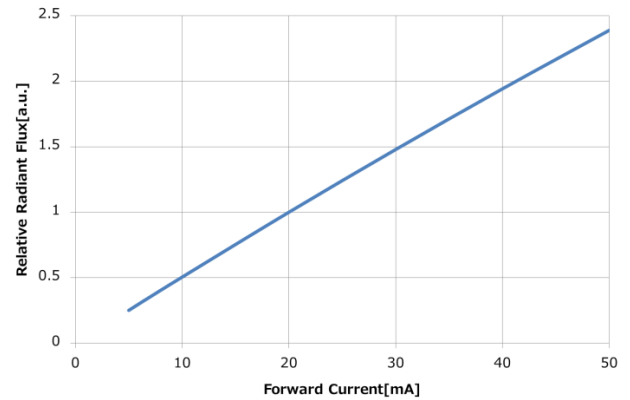
### ■ Forward Current vs. Forward Voltage

Ta = 25°C



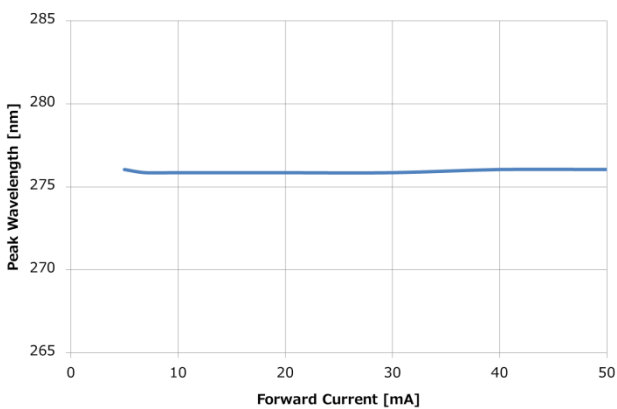
### ■ Relative Radiant Flux vs. Forward Current

Ta = 25°C



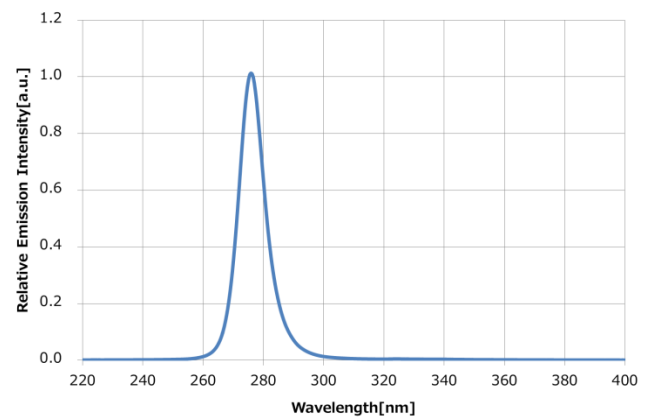
### ■ Peak Wavelength vs. Forward Current

Ta = 25°C

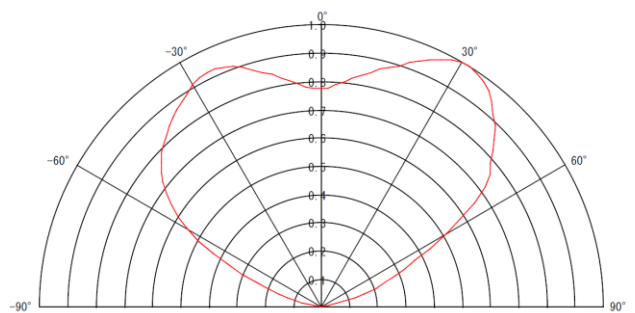


### ■ Spectrum

Ta = 25°C, I<sub>F</sub> = 20mA



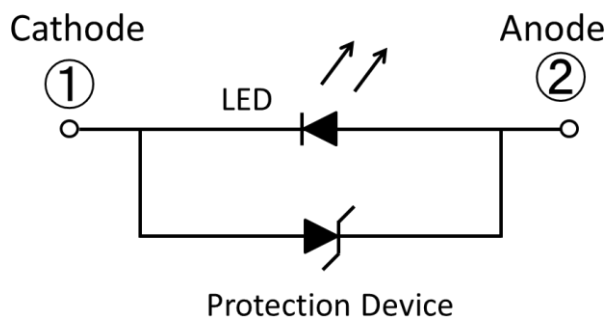
### ■ Radiation Pattern



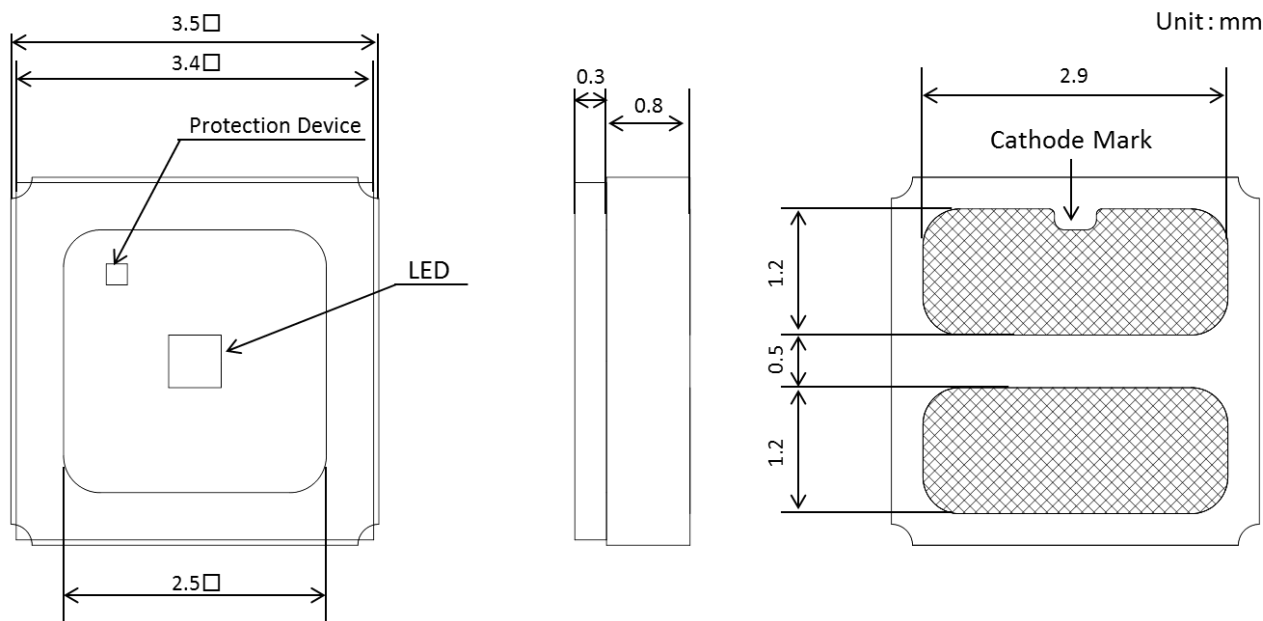
# DATA SHEET: CKA7001C03

## 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>

# DATA SHEET: CKA7001C03

## ULTRAVIOLET C LIGHT EMITTING DIODE



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# DATA SHEET: CKA7001C03

## ULTRAVIOLET C LIGHT EMITTING DIODE

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[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.

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