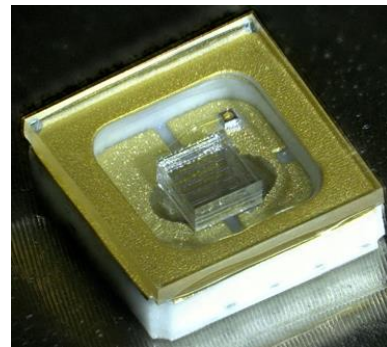


# DATA SHEET: CL7003C2

## ULTRAVIOLET C LIGHT EMITTING DIODE

### Features :

- Lighting Color (Peak Wavelength):275nm
- 30mW to 50mW available depending on the current setting



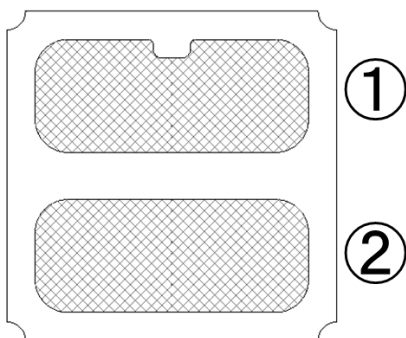
### Applications :

- 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	Type
CL7003C2	CL7003C2	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 1000 pcs</li> </ul>



# DATA SHEET: CL7003C2

## 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	$V_F$	3.7	5.2	6.8	V
Peak Wavelength	$\lambda_P$	265	275	285	nm
Radiant Flux	$P_O$	20.0	30.0	-	mW
Spectrum Half Width	$\Delta\lambda$	-	12.0	-	nm
Viewing Angle	$2\theta_{1/2}$		120		deg.
Thermal Resistance, Junction to Solder Point	$R_{J-S}$		16		°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 $T_a = 25^\circ\text{C}$

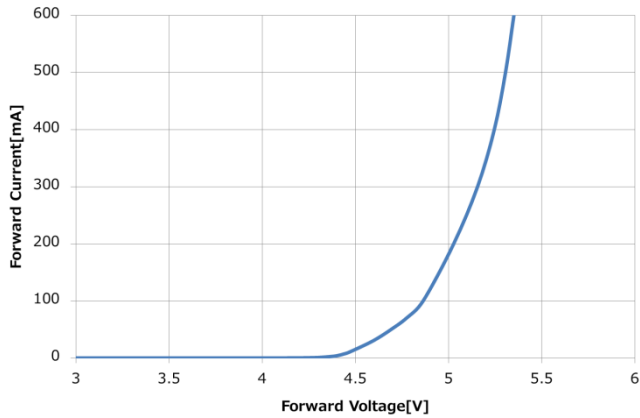
Forward Current [mA]	MIN. [mW]	TYP. [mW]	MAX, [mW]
350	20.0	30.0	—
400	—	35.0	—
500	—	42.0	—
600	—	50.0	—

# DATA SHEET: CL7003C2

## ULTRAVIOLET C LIGHT EMITTING DIODE

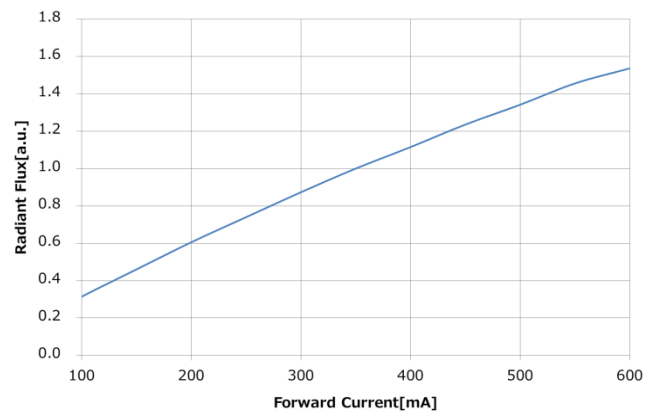
### ■ Forward Current vs. Forward Voltage

$T_a = 25^\circ\text{C}$



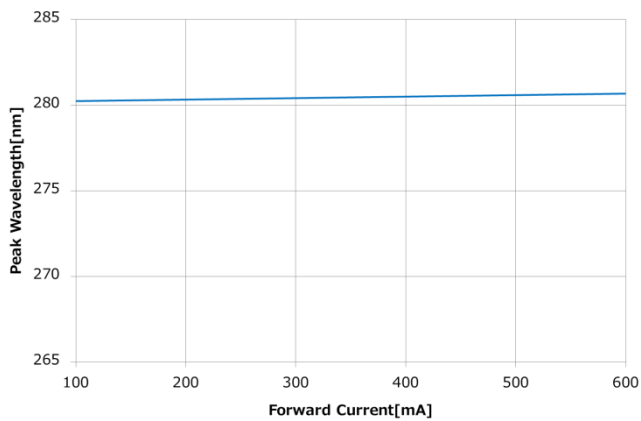
### ■ Relative Radiant Flux vs. Forward Current

$T_a = 25^\circ\text{C}$



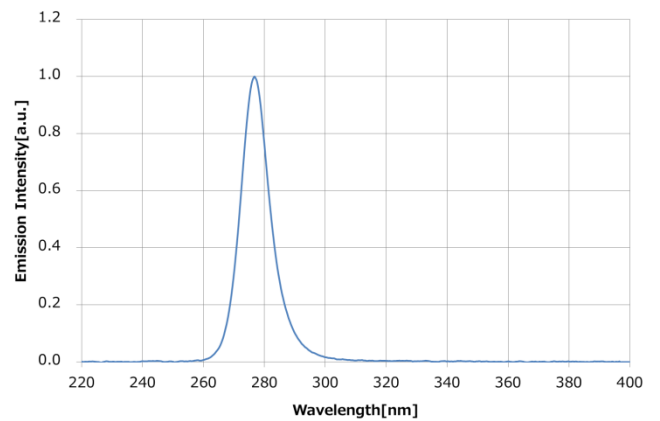
### ■ Peak Wavelength vs. Forward Current

$T_a = 25^\circ\text{C}$

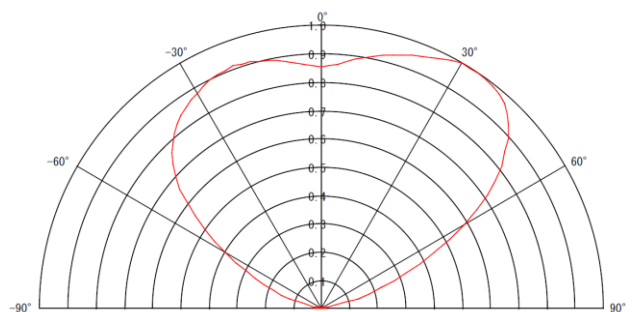


### ■ Spectrum

$T_a = 25^\circ\text{C}, I_F = 350\text{mA}$



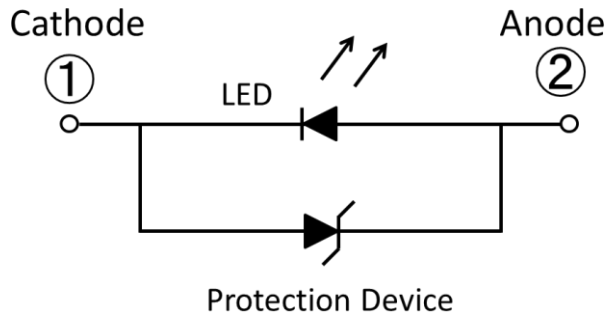
### ■ Radiation Pattern



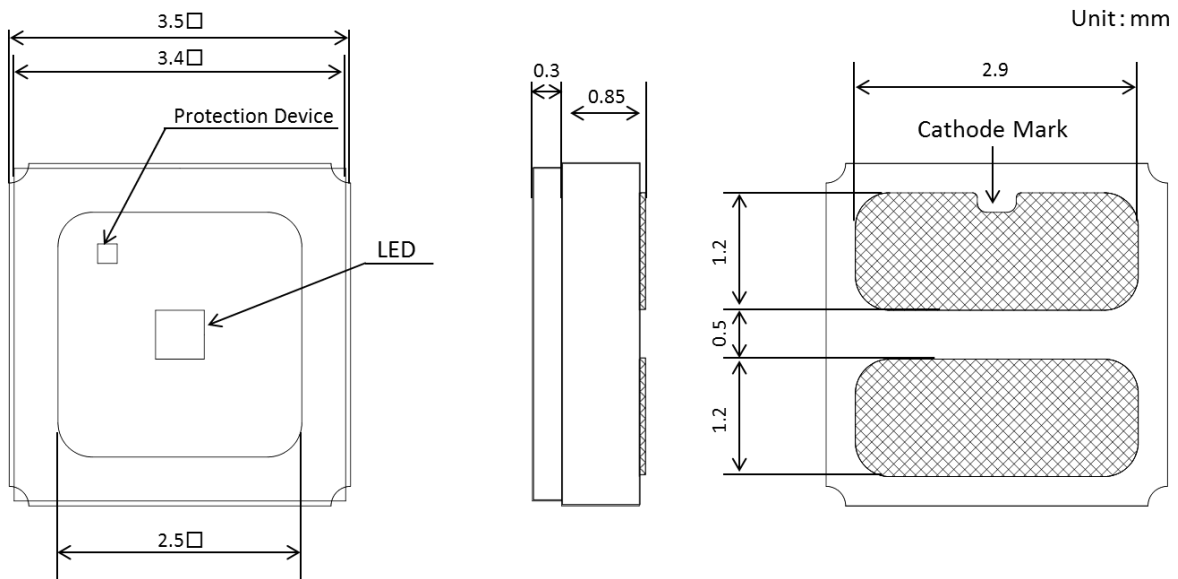
# DATA SHEET: CL7003C2

## ULTRAVIOLET C LIGHT EMITTING DIODE

### Internal Circuit :



### Package Dimensions :



# DATA SHEET: CL7003C2

## ULTRAVIOLET C LIGHT EMITTING DIODE

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# DATA SHEET: CL7003C2

## 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 humans.
- 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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# DATA SHEET: CL7003C2

## ULTRAVIOLET C LIGHT EMITTING DIODE

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### Revision History

Version	Change to current version	Page(s)
CDS-0054-03 Nov 2018	Preliminary data sheet	N/A
CDS-0054-04 Jan 2019	Removed "Preliminary" from title Added Reel Quantity information Changed Electrical and Optical Characteristics Added Measurement Tolerance Changed the Radiation Pattern	All 1 2 2 3
CDS-0054-05 Jan 2019	Updated "Ordering" and "Applications" information	1
CDS-0054-06 April 2019	Updated Features List Added "Radiant Flux vs. Forward Current" table	1 2