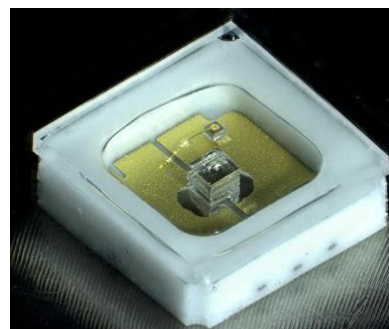


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ULTRAVIOLET C LIGHT EMITTING DIODE

Features :

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



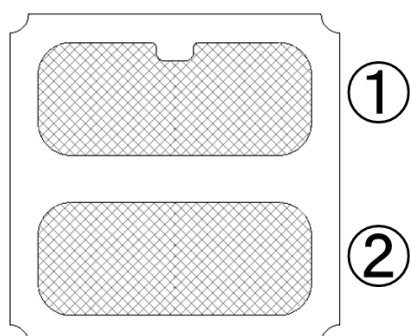
Applications :

- 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	Type
CL7001C3	CL7001C3	Surface Mount Type Ceramic Package	<ul style="list-style-type: none"> • Embossed 12 mm wide • Pin 1 (Cathode) is left side, when the perforation side of tape is upside. • Reel Qty: 1000 pcs



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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	λ_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(λ_P) measurement tolerance is $\pm 3\text{nm}$

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

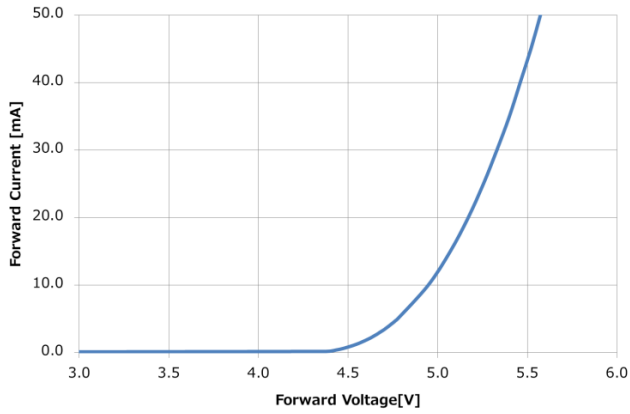
Forward Current [mA]	MIN. [mW]	TYP. [mW]	MAX, [mW]
20	2.0	3.0	-
30	-	4.0	-
40	-	5.5	-
50	-	6.5	-

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ULTRAVIOLET C LIGHT EMITTING DIODE

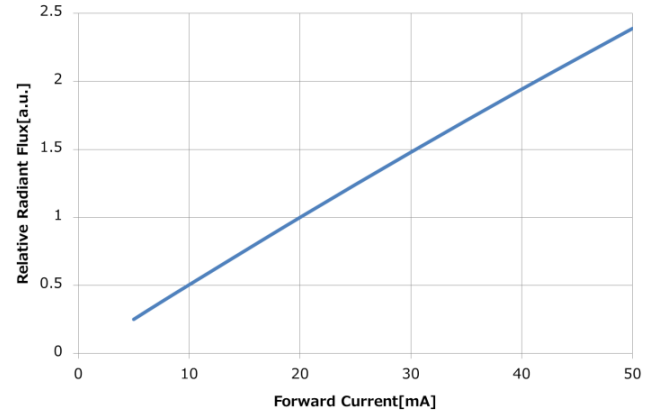
■ Forward Current vs. Forward Voltage

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



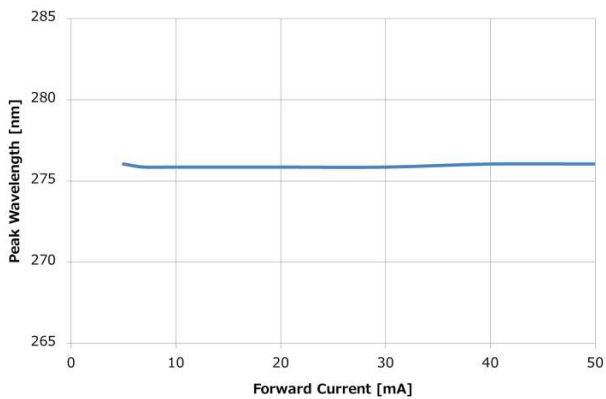
■ Relative Radiant Flux vs. Forward Current

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



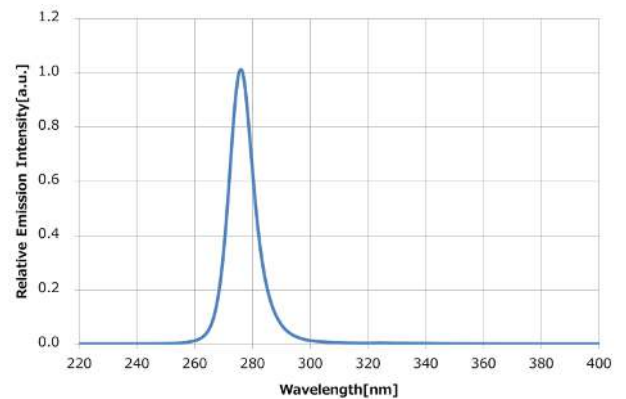
■ Peak Wavelength vs. Forward Current

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

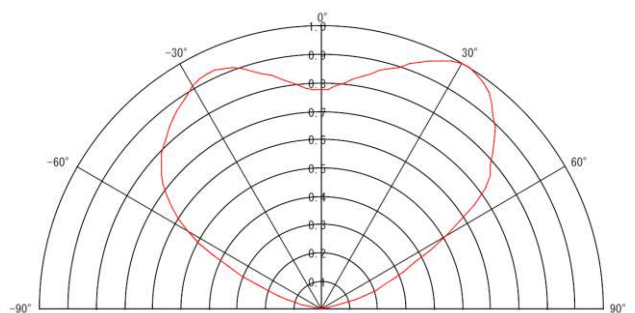


■ Spectrum

$T_a = 25^\circ\text{C}, I_F = 20\text{mA}$



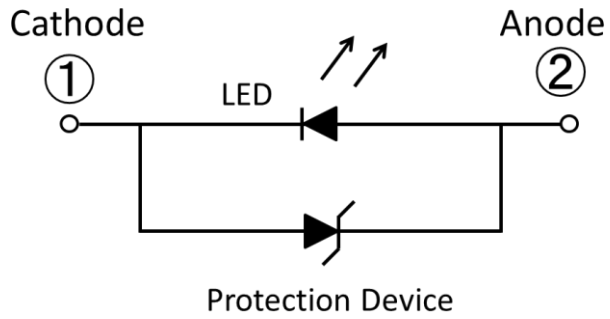
■ Radiation Pattern



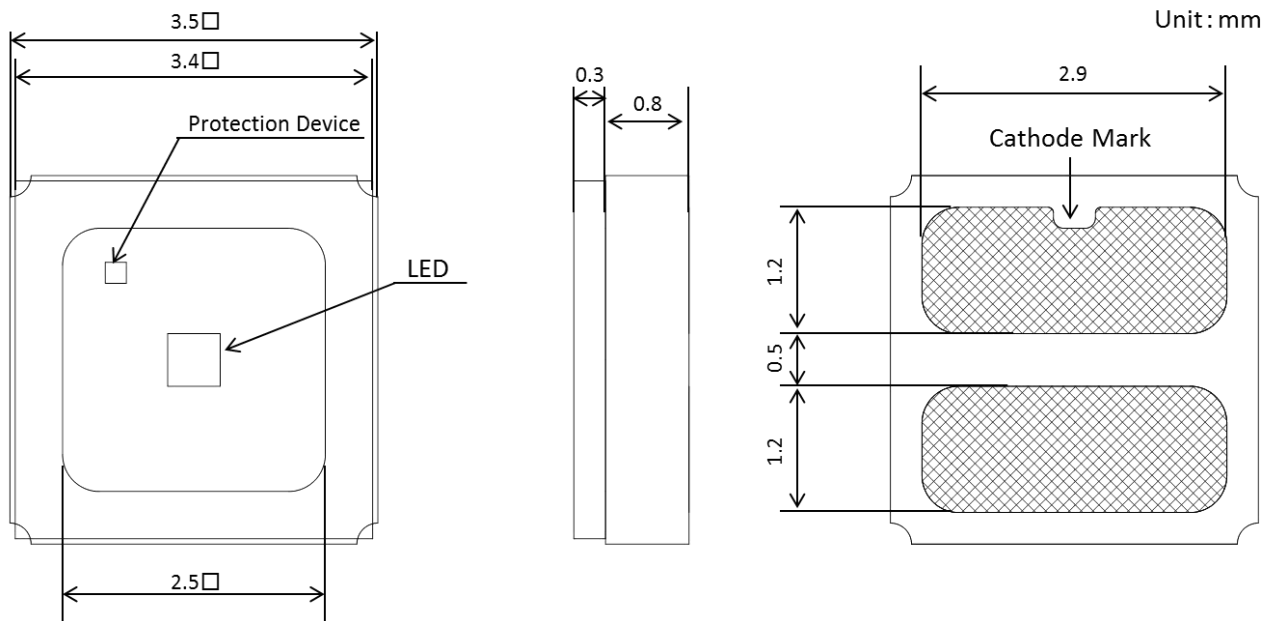
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Internal Circuit:



Package Dimensions :



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ULTRAVIOLET C LIGHT EMITTING DIODE

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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 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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ULTRAVIOLET C LIGHT EMITTING DIODE

Revision History

Version	Change to current version	Page(s)
CDS-0052-01 Nov. 2018	Preliminary data sheet	N/A
CDS-0052-05 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-0052-06 Feb. 2019	Updated "Applications" information	1
CDS-0052-07 April 2019	Updated Features List Added "Radiant Flux vs. Forward Current" table	1 2