

DATA SHEET: CKA7003C02

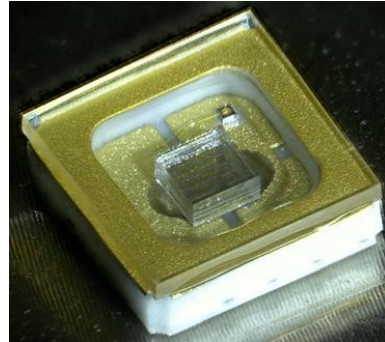
ULTRAVIOLET C LIGHT EMITTING DIODE

Features :

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

Applications :

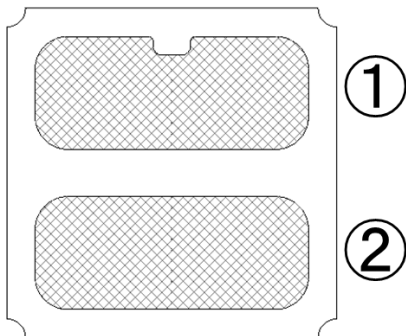
- Disinfection
- Water Clarification
- Air Cleaning



Package :

- Surface Mount Type Ceramic Package

PIN Configuration :



PIN No.	PIN Name
1	Cathode
2	Anode

Ordering Information :

Part Number	Order Number	Package	Supplying Form
CKA7003C02	CKA7003C02	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 1,000pcs/reel

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

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

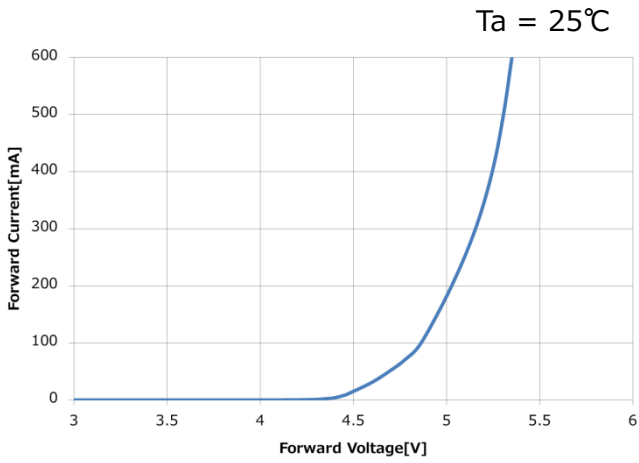
Forward Current [mA]	MIN. [mW]	TYP. [mW]	MAX, [mW]
350	20.0	30.0	—
400	—	35.0	—
500	—	42.0	—
600	—	50.0	—

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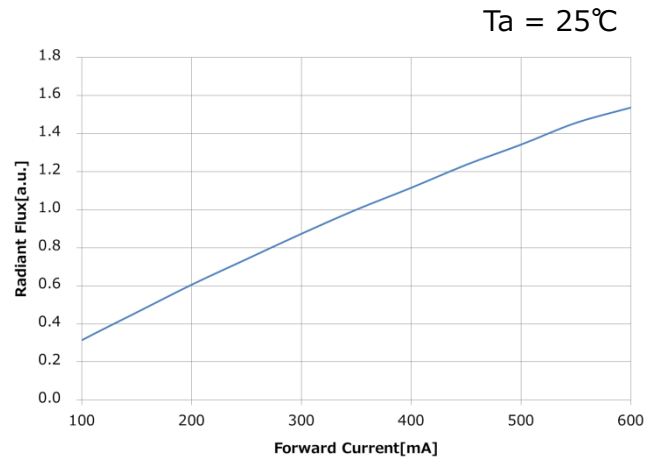
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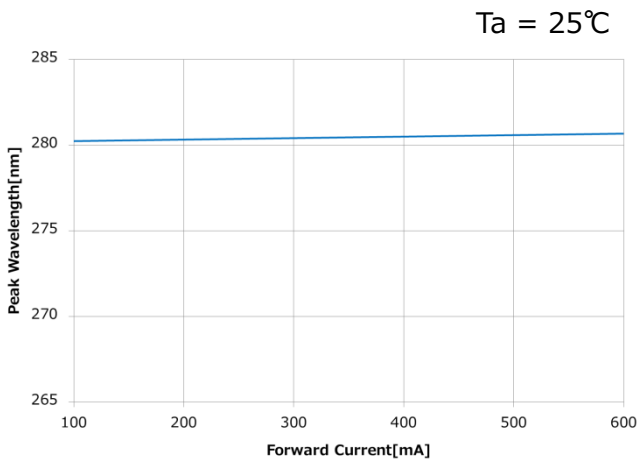
■ Forward Current vs. Forward Voltage



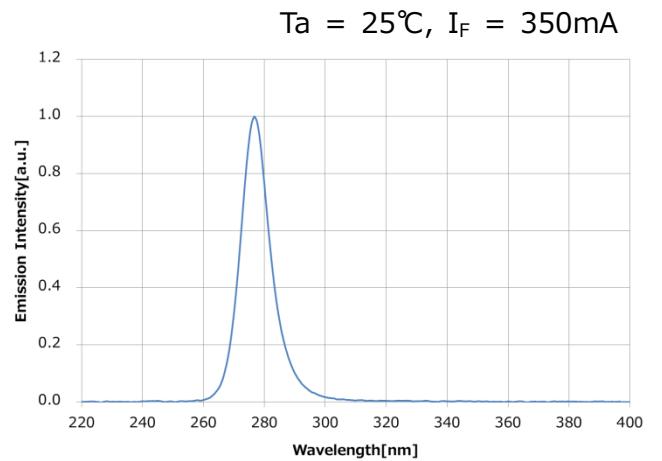
■ Relative Radiant Flux vs. Forward Current



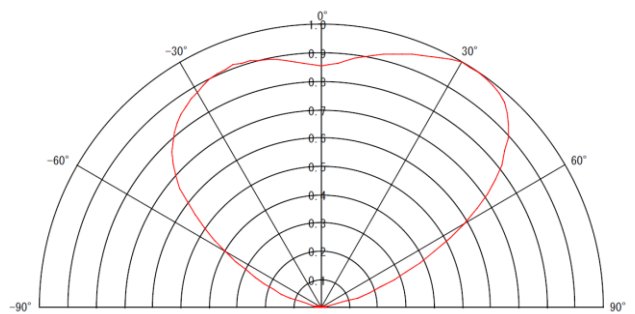
■ Peak Wavelength vs. Forward Current



■ Spectrum



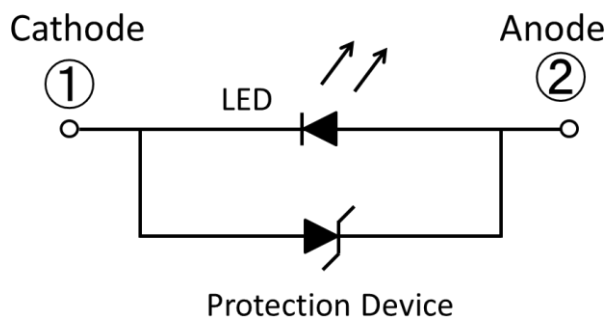
■ Radiation Pattern



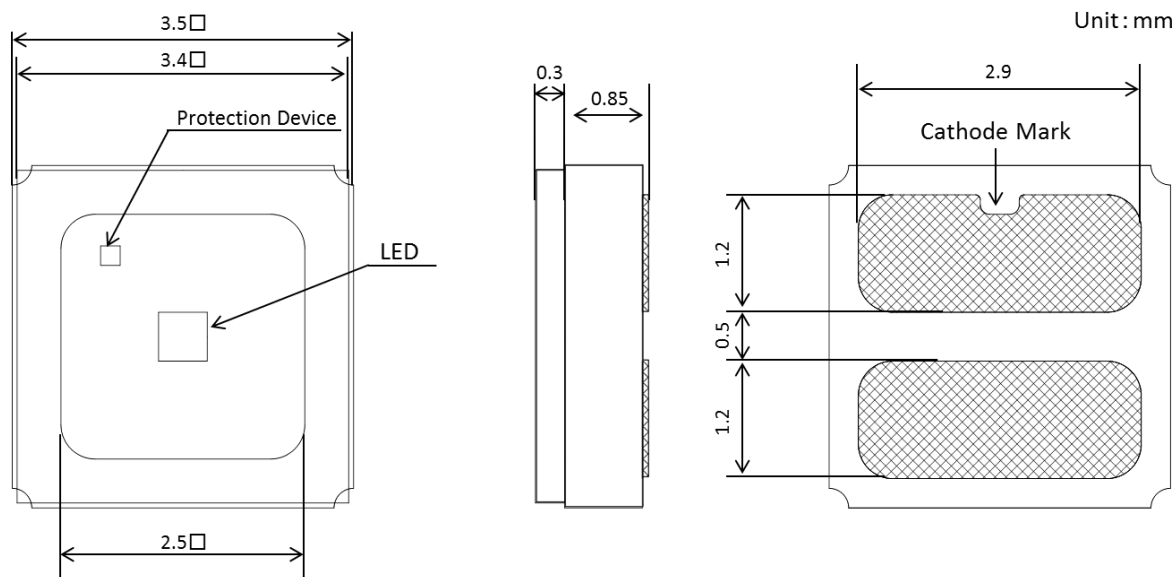
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Internal Circuit :



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>

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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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