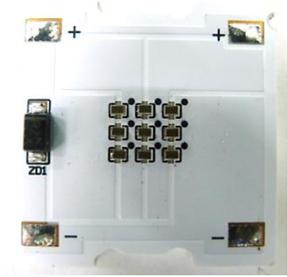


Integrated UV LED Solution

**XMD-DFS-CO9A**



## Product Brief

### Description

- SVC UVC module is optimized to replace mercury lamp with high efficiency
- Specially designed single wavelength is ideal for disinfection
- There's no harmful substances in UV LED module. SVC product is eco-friendly product.

### Features and Benefits

- Long Life Time
- Lead Free Product
- RoHS Compliant
- Energy Saving
- Eco-friendly

### Key Applications

- Disinfection

**Table 1. UVC module Product**

Product type	Voltage [V]	Current [mA]	Power [W]	Peak wavelength $\lambda_p$ [nm]	Remark
UVC Module	20.0	300	6.0	275	

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## Performance Characteristics

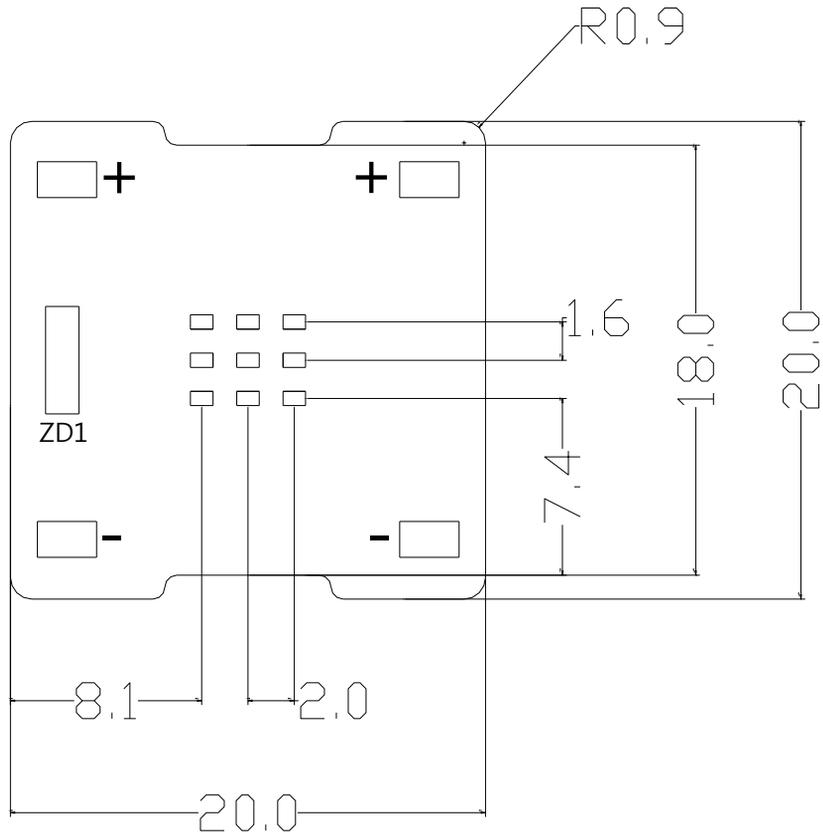
**Table 2. Electro Optical Characteristics of UVC LED module<Ta=25°C, Constant current>**

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Power Consumption	$P_d$	4.5	6.0	7.2	W
Radiant Power	$\Phi_e$		90		mW
Input Voltage	$V_{in}$	15.0	20.0	24.0	Vdc
Input Current	$I_{in}$		300		mA
Spectrum Half Width	$\Delta\lambda$		10		nm
Peak Wave length	$\lambda_p$	270	275	280	nm

**Note :**

- [1]  $P_d$  can be changed by surrounding temperature and current.
- [2] Peak Wavelength Measurement tolerance :  $\pm 3\text{nm}$
- [3] Radiant Flux Measurement tolerance :  $\pm 10\%$
- [4]  $\Phi_e$  is the Total Radiant Flux as measured with an integrated sphere.
- [5] Forward Voltage Measurement tolerance :  $\pm 3\%$

# Mechanical Dimension



## **Packing <TBD>**

## Precaution for Use

### 1) Storage

- To avoid moisture penetration, we recommend storing products in a dry box with a desiccant. The recommended temperature and Relative humidity are between 5°C and 30°C and below 50% respectively.
- Products must be stored properly to maintain the device. If the products are stored for 3 months or more after being shipped from SVC, a sealed container with a nitrogen atmosphere should be used for storage.
- Prolonged exposure to moisture can adversely affect the proper functioning of the Products.
- Keep the products away from the kid

### 2) Handling Precautions

- VOCs (Volatile organic compounds) emitted from materials used in the construction of fixtures can penetrate products and discolor them when exposed to heat and photonic energy. The result can be a significant loss of light output from the fixture. Knowledge of the properties of the materials selected to be used in the construction of fixtures can help prevent these issues.
- In case of using the products, do not use adhesives that outgas organic vapor.
- Please do not use together with the materials containing Sulfur.
- Please do not assemble in conditions of high moisture and/or oxidizing gas such as Cl, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>2</sub>, NO<sub>x</sub>, etc.
- Do not apply mechanical force or excess vibration during the cooling process to normal temperature after soldering.
- Do not use inflammable material nearby the products.
- Do not touch the products with wet hand
- Do not fix or remodel the products.
- Do not drop the machine, or give strong impact on the products.
- Cover needs to be handled carefully as below
  - Avoid touching cover parts especially with sharp tools such as pincettes(Tweezers)
    - Avoid leaving fingerprints Cover parts.
    - Cover will attract dust so use covered containers for storage.
    - It is not recommend to cover of the Lamp with other materials (epoxy, urethane, etc)

### 3) Safety for eyes and skin

- The Products emit high intensity ultraviolet light which can make your eyes and skin harmful, So do not look directly into the UV light and wear protective equipment during operation.

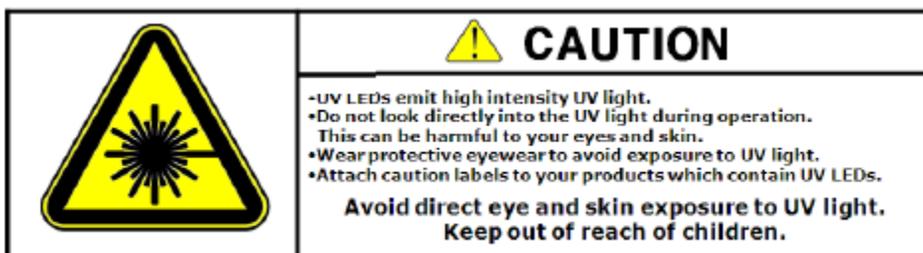
### 4) Operation

- The module should be operated under the given forward voltage and current. When the module is operated in the excessive voltage or current conditions, the LEDs mounted on the product could be burned out.
- This module is not allowed to be used in any type of fluid such as water, oil, organic solvent , etc

## Precaution for Use

### 5) Others

- The appearance and specifications of the product may be modified for improvement without notice.
- The driving circuit must be designed to allow forward voltage only when it is ON or OFF. If the reverse voltage is applied to LED, migration can be generated resulting in LED damage.
- Do not handle this product with acid or sulfur material in sealed space
- Please handle using equipment that prevents static electricity.
- Do not touch unless ESD protection is used.
- Ionizer, earthing and keeping appropriate humidity are necessary for work environment.



## Revision History

Revision	Date	Page	Remarks
0.0	21-02-2019	All	Initial release of preliminary data sheet applied
0.1	26-02-2019	1,3	Amended Part no. and unit