

SPECIFICATION

Product : UV CoB Module

Part No. : IWC-C22R2-V3X-1102W

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Comment

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UV CoB Module

IWC-C22R2-V3X-1102W

Tentative

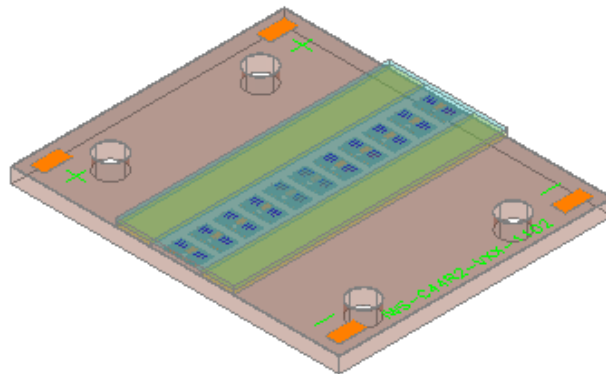


1. Features

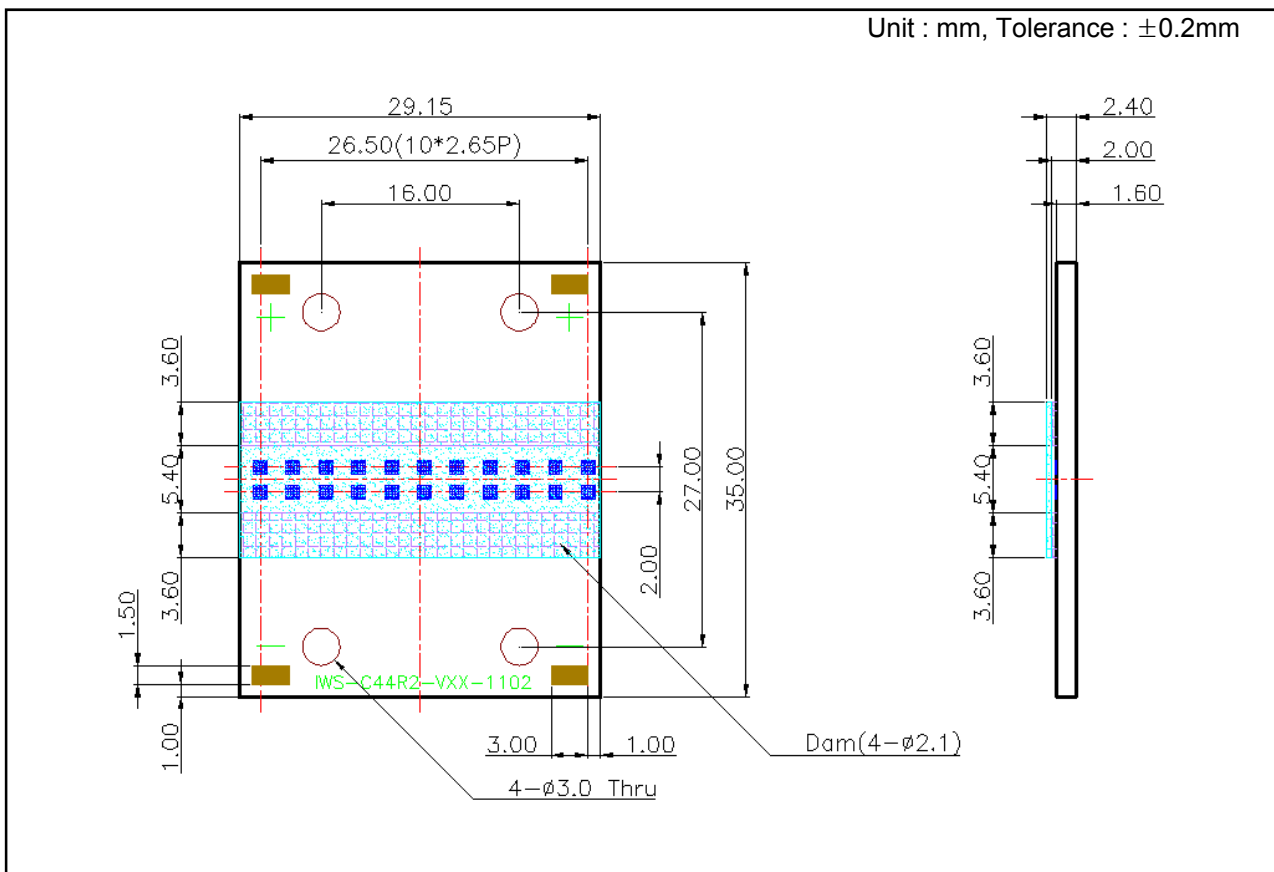
- High Power UV CoB Module
- High-flux Module : 29.15 x 35.0 x 2.4 mm
- Wide Viewing Angle : 120°
- Chip Array : 11(Series) × 02(Parallel)

2. Applications

- Lithography
- UV Curing
- Phototherapy
- Air / Water Purification
- Analytical Instruments
- Tanning



3. Outline Drawing and Dimension



Note

1. All dimensions are in millimeters
2. All dimensions without tolerances are for reference only

4. Absolute Maximum Ratings($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_d	44	W
Continuous Forward Current	I_F	1,400	mA
Peak Forward Current *1	I_{FP}	2,000	mA
Operating Temperature	T_{opr}	-30 ~ 85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ 85	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260 (5sec)	$^\circ\text{C}$

*1 Duty ratio = 1/10, Pulse width = 0.1ms

5. Electro-optical Characteristics($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Item	Conditions	Min.	Typ.	Max.	Unit.
Forward Voltage *2	V_F	C22R2	$I_F = 1,000\text{ mA}$	38.0	-	44.0	V
Radiant Flux *3	Φ_E	C22R2-V36	$I_F = 1,000\text{ mA}$	8.0	-	12.0	W
		C22R2-V38	$I_F = 1,000\text{ mA}$	12.0	-	17.0	
		C22R2-V39	$I_F = 1,000\text{ mA}$	12.0	-	17.0	
Peak Wavelength *4	W_P	C22R2-V36	$I_F = 1,000\text{ mA}$	360	-	370	nm
		C22R2-V38	$I_F = 1,000\text{ mA}$	380	-	390	
		C22R2-V39	$I_F = 1,000\text{ mA}$	390	-	400	
Viewing Angle *5	$2\theta_{1/2}$	C22R2	$I_F = 1,000\text{ mA}$	-	120	-	deg.

*2 Forward Voltage has a tolerance of $\pm 0.05\text{ V}$.

*3 Radiant Flux is tested by a tester calibrated by CAS 140B(CIE LED_B) and has an accuracy of 10%

*4 Peak Wavelength has an accuracy of $\pm 2\text{ nm}$

*5 Viewing Angle is the angle until 50% of brightness measured from the front part of LED.

5.1 Radiant Flux Rank

Rank	Radiant Flux (W)	Item
B	8.0 ~ 10.0	C22R2-V36
C	10.0 ~ 12.0	
D	12.0 ~ 14.0	C22R2-V38
E	14.0 ~ 17.0	C22R2-V39

5.3 Peak Wavelength Rank

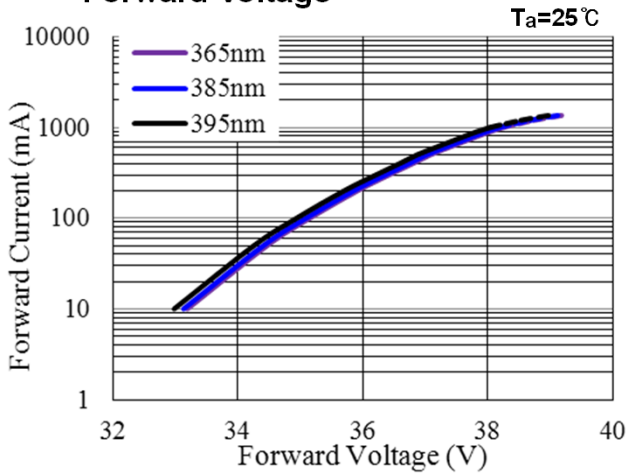
Rank	Peak Wavelength (nm)	Item
A	360 ~ 370	C22R2-V36
B	380 ~ 390	C22R2-V38
C	390 ~ 400	C22R2-V39

5.2 Forward Voltage Rank

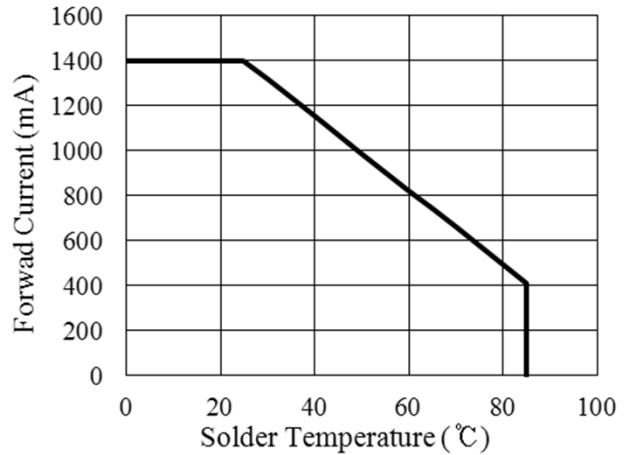
Rank	Forward Voltage (V)	Item
1	38.0 ~ 40.0	C22R2
2	40.0 ~ 42.0	
3	42.0 ~ 44.0	

6. Typical Characteristics Curves

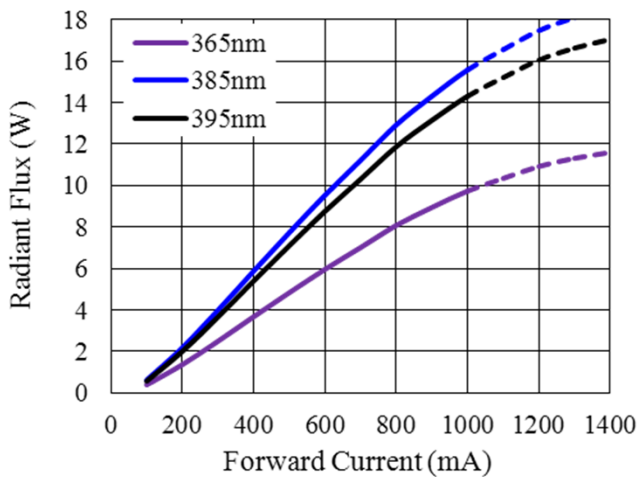
Forward Current vs. Forward Voltage



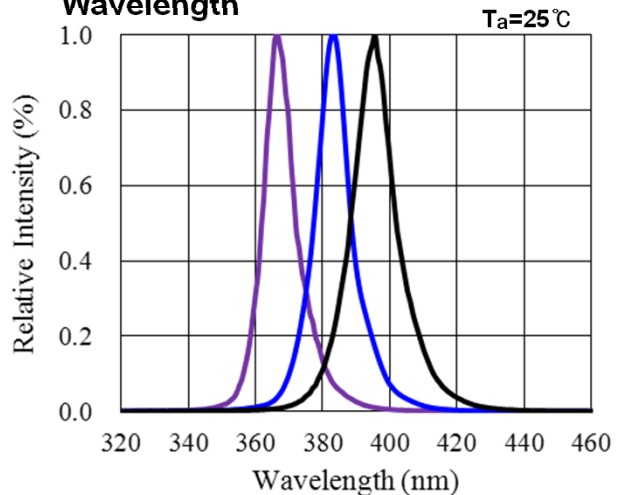
Forward Current vs. Solder Temperature



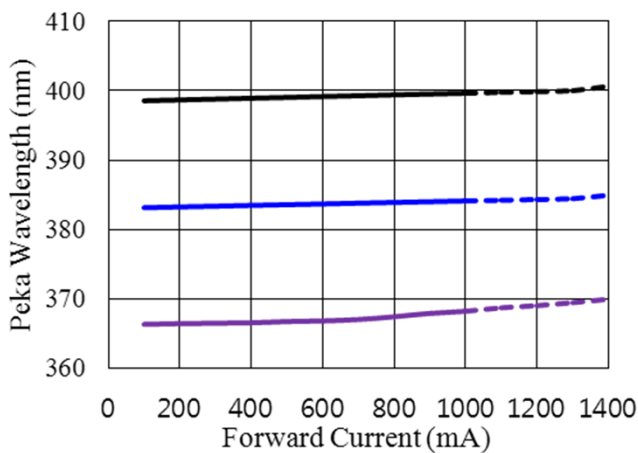
Radiant Flux vs. Forward Current



Relative Intensity vs. Wavelength



Relative Peak Wavelength vs. Forward Current



Radiation Diagram

