# FCL-P115XXXWCCI Range

### 7.6 mm Square Flat Top Tri-Colour LED Lamp

Features: • Three dice - Tri-colour

Water clear epoxy

• Low thermal resistance copper leadframe

4 leads with stand off

Class II ESD Rating

### Electro / Optical Characteristics $I_F = 20 \text{ mA}$ $T_a = 25^{\circ} \text{ C}$

LED Lamp Package	LED Part Number	Emitting Colour	Epoxy Type	Die Material	Wavelength		Forward Voltage V <sub>F</sub>		Luminous intensity I <sub>V</sub>		Viewing ∠
					Peak λ <sub>P</sub>	Dominant λ <sub>d</sub>	typical	max	min	typical	2θ½
	FCL-P115R078G03B12WCCI	Red	WC	AlGalnP	632	624	2.00	2.40	-	140	115
		Green		InGaN/SiC	518	525	3.70	4.20	-	140	
		Blue		InGaN/SiC	468	470	3.75	4.00	-	100	
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7.6 x 7.6 mm	Units				nm		V		mcd		deg

#### Maximum Ratings per die $T_a = 25^{\circ} C$ (Derate above 25° C)

Characteristic	Condition	Symbol	Rating		
Pulse Forward Current	0.1 duty cycle @ 1KHz		I <sub>FP</sub>	100	
DC Forward Current		AlGaInP die	IF	50	
Reverse Voltage	I <sub>R</sub> = 10 μA		V <sub>R</sub>	10	
Pulse Forward Current	0.1 duty cycle @ 1KHz	115-	I <sub>FP</sub>	100	
DC Forward Current		InGaN/SiC die	I <sub>F</sub>	35	
Reverse Voltage	I <sub>R</sub> = 10 μA		V <sub>R</sub>	5	
Operating Temperature		To		- 20 to + 80	
Storage Temperature			T <sub>stg</sub>	- 20 to + 100	
Lead soldering temperature	1.6 mm from body - max		240		

#### Note

Consideration must be given to forward current levels at elevated temperatures when driving all dice simultaneously to ensure maximum efficiency over the life of the product.

Industry standard procedures regarding static must be observed when handling product produced with the following die material:
InGaN/SiC

It is the responsibility of the customer to verify the suitability of the product for the application.



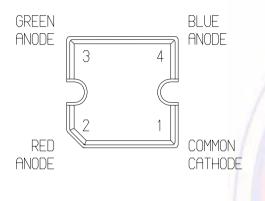
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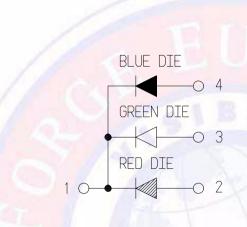
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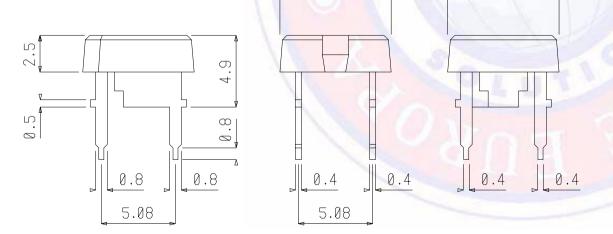
## **Package Outline**

Dimensions in mm

Tol ± 0.25 mm unless stated



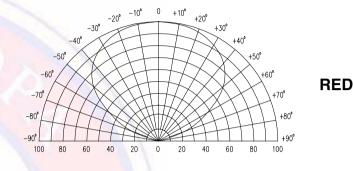


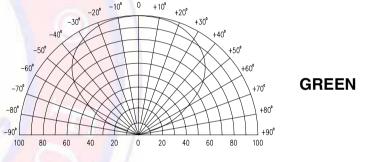


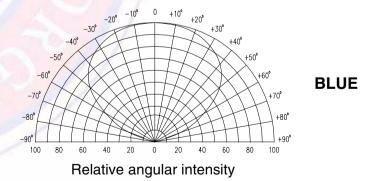
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## **Radiation Diagrams**

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







#### Note:

Due to manufacturing tolerances the maximum intensity position may deviate from the 0° point.

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