

## Features:

- Three dice - Single colour
- Water clear epoxy
- Low thermal resistance copper leadframe
- 4 leads with stand off
- Class II ESD Rating

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

Lamp Package	Part Number	Dice Qty	Emitting Colour	Epoxy Type	Die Material	Wavelength		Forward Voltage $V_F$	
						Peak $\lambda_P$	Dominant $\lambda_d$	typical	max
	FNL-P115R078TWCCI	3	Red	WC	AlGaInP	632	624	2.00	2.40
	FNL-P115O038TWCCI	3	Orange	WC	AlGaInP	611	604	2.00	2.40
	FNL-P115Y048TWCCI	3	Yellow	WC	AlGaInP	591	589	2.00	2.40
	FNL-P115G16TWCCI	3	Green	WC	InGaN/SiC	518	527	3.85	4.00
	FNL-P115G11TWCCI	3	Green	WC	InGaN/SiC	502	505	3.80	4.00
	FNL-P115B11TWCCI	3	Blue	WC	InGaN/SiC	458	460	3.75	4.00
7.6 x 7.6 mm	Units					nm		VDC	

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

Luminous intensity $I_V$		Viewing $\angle$ 20 $\frac{1}{2}$
typical	@ $I_F$ / Die	
1030	45	115
940	45	115
1030	45	115
1100	30	115
840	30	115
270	30	115
mcd	mA	deg

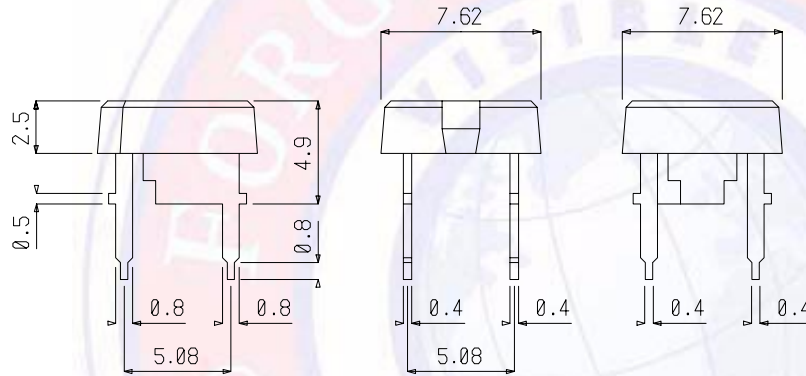
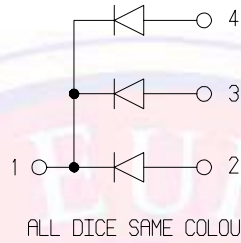
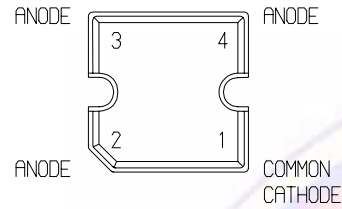
## Note:

Intensity figures shown are with all dice powered

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

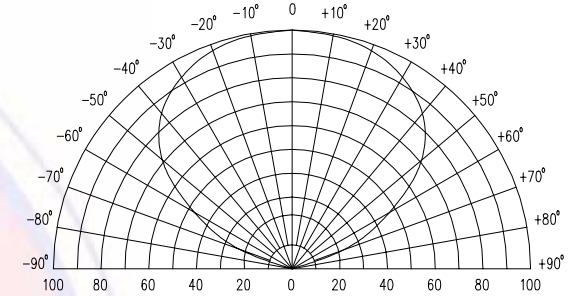
## Package Outline

Dimensions in mm  
Tol ± 0.25 mm  
unless stated



## Radiation Diagram

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



Relative angular intensity

### Note:

Due to manufacturing tolerances the maximum intensity position may deviate from the  $0^\circ$  point.

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

Characteristic	Condition	Symbol	Rating / die
Pulse Forward Current	0.1 duty cycle @ 1KHz	$I_{FP}$	100
DC Forward Current		$I_F$	45
Reverse Voltage	$I_R = 10 \mu\text{A}$	$V_R$	10
Pulse Forward Current	0.1 duty cycle @ 1KHz	$I_{FP}$	100
DC Forward Current		$I_F$	30
Reverse Voltage	$I_R = 10 \mu\text{A}$	$V_R$	5
Operating Temperature		$T_{opr}$	- 20 to + 80
Storage Temperature		$T_{stg}$	- 20 to + 100
Lead soldering temperature	1.6 mm from body - max. 3 seconds		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