



洲磊科技股份有限公司
UniLite Corporation

InGaN LED Chip
TC-04XX-R12-PA

SPECIFICATIONS

MODEL: TC-04XX-R12-PA



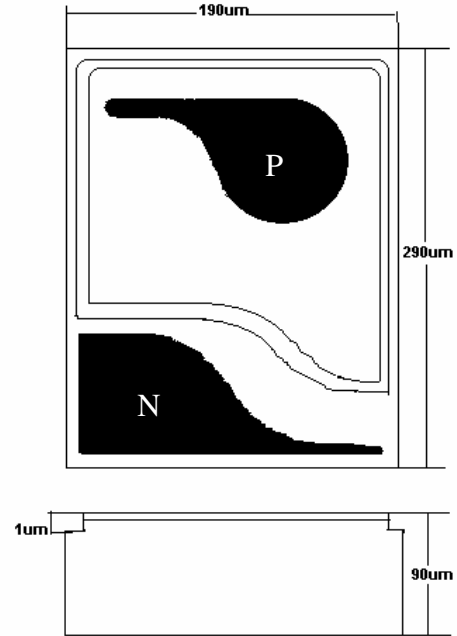
InGaN LED Chip specification

Description :

High-brightness blue color emission.
Gold (Au) bonding pads at P and N metals.
Excellent performance.

Structure :

Chip size : $(290\pm 10)\mu\text{m} \times (190\pm 10)\mu\text{m}$
Chip thickness : $90\pm 10\mu\text{m}$
Contact metal : P and N pads by Au
Bond pad : diameter: $105\pm 10\mu\text{m}$
Substrate : Sapphire



ELECTRO-OPTICAL CHARACTERISTICS (@ 5mA DC):

Model	Color Type	Dominant Wavelength (nm)		Forward Voltage (V)		Leakage Current ($\mu\text{A}@7\text{V}$)	Brightness	FWHM (nm)
		Min	Max	Typ	Max	Max	Rank	
TC-0453-R12	B	450	452.5	2.8	3.1	1	TA02~TA07	30
TC-0455- R12		452.5	455			1		
TC-0458- R12		455	457.5			1		
TC-0460- R12		457.5	460			1		
TC-0463- R12		460	462.5			1		
TC-0465- R12		462.5	465			1		
TC-0468- R12		465	467.5			1		
TC-0470- R12		467.5	470			1		
TC-0473- R12		470	472.5			1		
TC-0475- R12		472.5	475			1		
TC-0480- R12		475	480			1		

Grade		Brightness (@5mA)
Rank	TA02	10.001 ~ 15mcd
	TA03	15.001 ~ 20mcd
	TA04	20.001 ~ 25mcd
	TA05	25.001 ~ 30 mcd
	TA06	30.001 ~ 35 mcd
	TA07	35.001~ 40mcd

Notes:

- 1) Due to measurement variation for tolerance of $\pm 5\%$ on brightness level and $\pm 2\text{nm}$ on chromaticity apply.
- 2) A shipping tolerance of $\pm 10\%$ applies to all deliveries.
- 3) Products not listed above are available upon request.



• **Typical Electro-optical Characteristics Curve:**

Fig1. Forward Current vs. Forward Voltage:

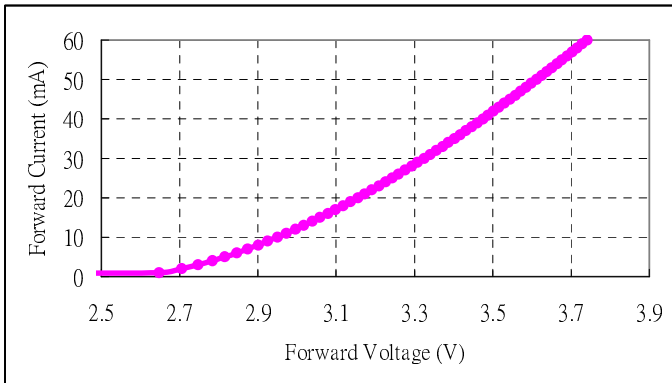


Fig2. Forward Current vs. Relative Intensity:

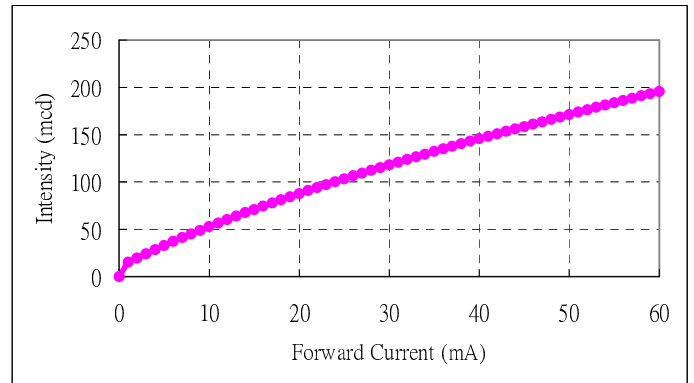


Fig3. Forward Current vs. Relative Wavelength:

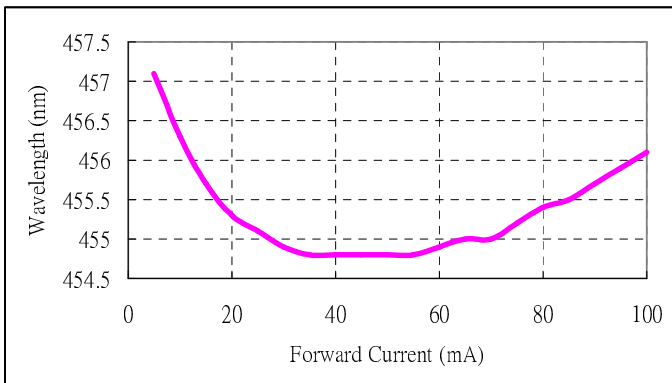


Fig4. Life Test at 20mA R.T. 1000hrs:

