



## SPECIFICATION

Description:

30 Degree 5mm Round LITEFO Lamp  
in Bluish Green Color with Water  
Transparent Lens and Stopper

Dice Material: InGaN

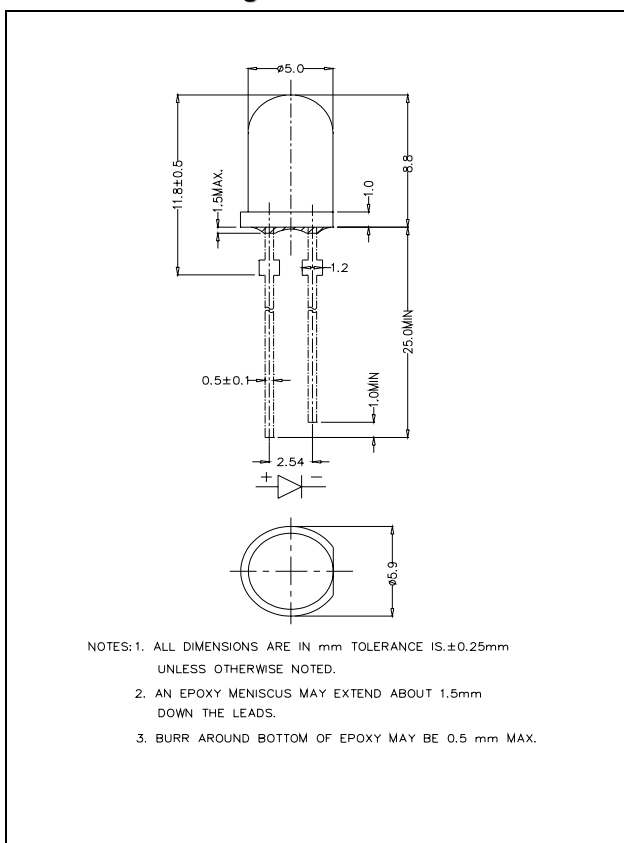
MODEL No : FC530APBG11



Confirmed  
by Customer: \_\_\_\_\_

Date: \_\_\_\_\_

## Dimension Drawing



## Applications

- Advertising Signs
- Indicators
- Traffic

## Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	$I_F$	25	mA
Peak Forward Current*	$I_{FP}$	100	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	105	mW
Operation Temperature	$T_{opr}$	$-40 \sim +95$	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	$-40 \sim +100$	$^\circ\text{C}$
Lead Soldering Temperature	$T_{sol}$	Max. $260^\circ\text{C}$ for 3 sec Max. (3mm from the base of the epoxy bulb)	

\* pulse width  $\leq 0.1\text{msec}$  duty  $\leq 1/10$

## Typical Electrical & Optical Characteristics ( $T_a = 25^\circ\text{C}$ )

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	---	3.6	4.2	V
Reverse Current	$I_R$	$V_R = 5\text{V}$	---	---	100	$\mu\text{A}$
Dominant Wavelength	$\lambda_D$	$I_F = 20\text{mA}$	500	505	510	nm
Luminous Intensity	$I_v$	$I_F = 20\text{mA}$	3000	4800	---	mcd
50% Power Angle	$2\theta_{1/2}$ H-H	$I_F = 20\text{mA}$	---	30	---	deg

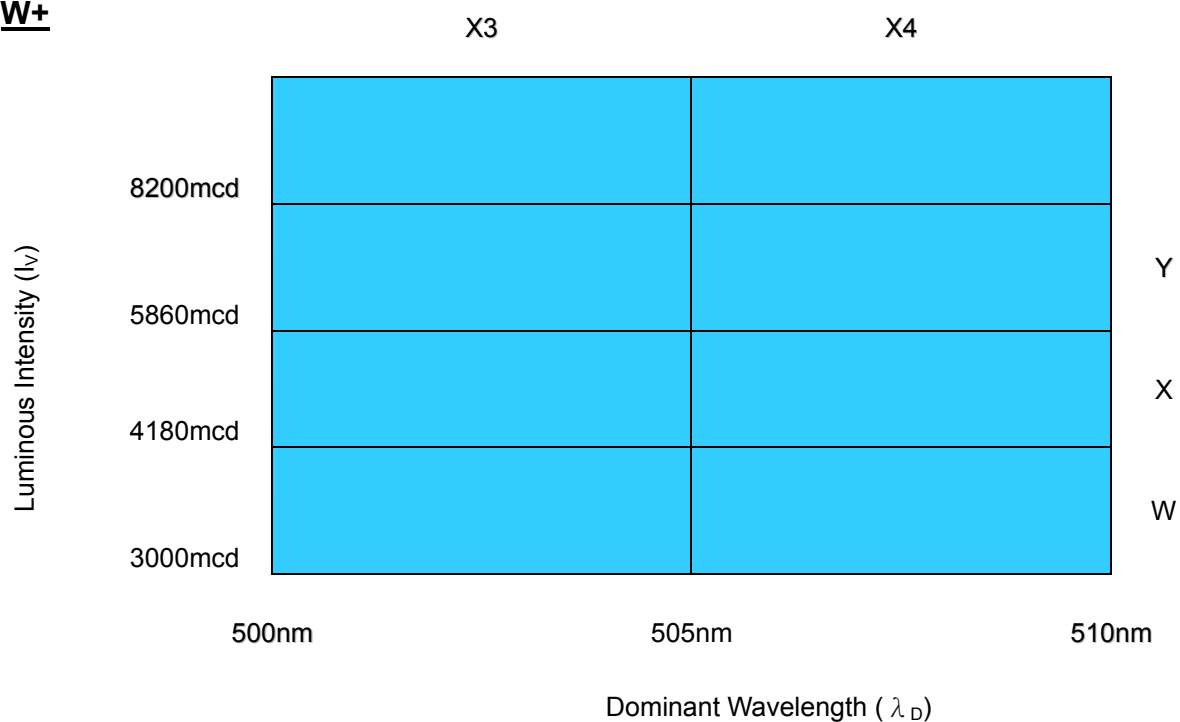
### Standard bins for FC530APBG11 ( $I_F = 20\text{mA}$ ):

Lamps are sorted to Luminous Intensity – $I_V$ ,  $V_F$  & Dominant Wavelength – $\lambda_D$  bins shown.

Orders for FC530APBG11 may be filled with any or all bins contained as below.

All Luminous Intensity – $I_V$ ,  $V_F$  & Dominant Wavelength – $\lambda_D$  values shown and specified are at  $I_F = 20\text{mA}$ .

\* **W+**



\* W+ indicates Luminous Intensity is at W bin or above.

### Forward Voltage ( $V_F$ )

Rank	V8	V9	V10	V11	V12	V13
Voltage	3.0-3.2V	3.2-3.4V	3.4-3.6V	3.6-3.8V	3.8-4.0V	4.0-4.2V

### Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by LITEFO.
- 2) Pb content <1000PPM.
- 3) Tolerance of measurement of luminous intensity is  $\pm 15\%$ .
- 4) Tolerance of measurement of dominant wavelength is  $\pm 1\text{nm}$ .
- 5) Tolerance of measurement of  $V_f$  is  $\pm 0.05\text{ V}$ .

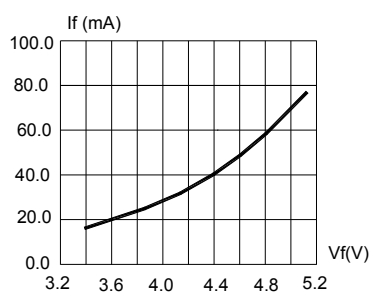


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

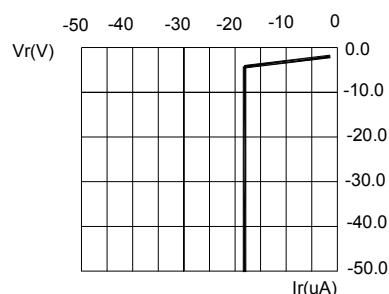


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

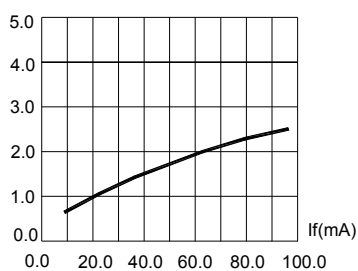


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

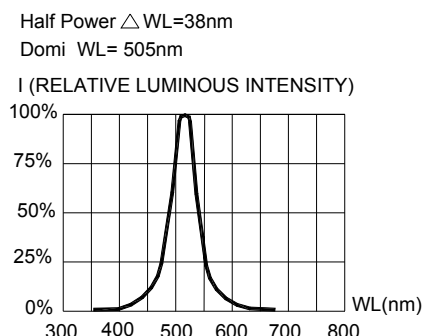


FIG.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

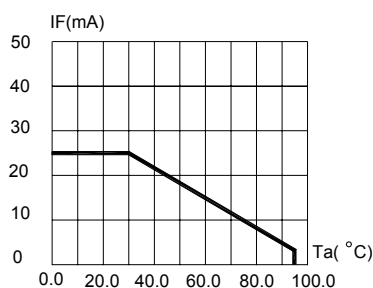


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE ( $T_{jmax}=105^{\circ}C$ )

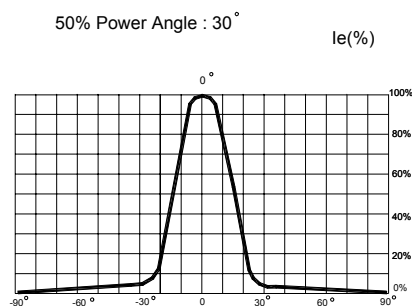


FIG.6 FAR FIELD PATTERN

Items	Signatures	Date	Revision History	
Prepared by	Lois	2004/10/07	DOC. No.	CHANGE DESCRIPTION
Checked by	Jarvis	2004/10/07	B 24Jun04	VF add V8. Add Pb Free sign.
Approved by	D.W.Liu	2004/10/07	03 07Oct04	Change $T_{opr}$ & $T_{stg}$ ; Change FIG.1&3&5; Change IV& $\lambda_D$ Rank form.
ECN#	ECN-H20040274			

Data is subject to change without prior notice.

Obsoletes Doc: B 24Jun04.