



## SPECIFICATION

Description:

15 Degree 5mm Round LITEFO Lamp  
in Yellow Green Color with Water  
Transparent Lens and No Stopper

Dice Material: GaP

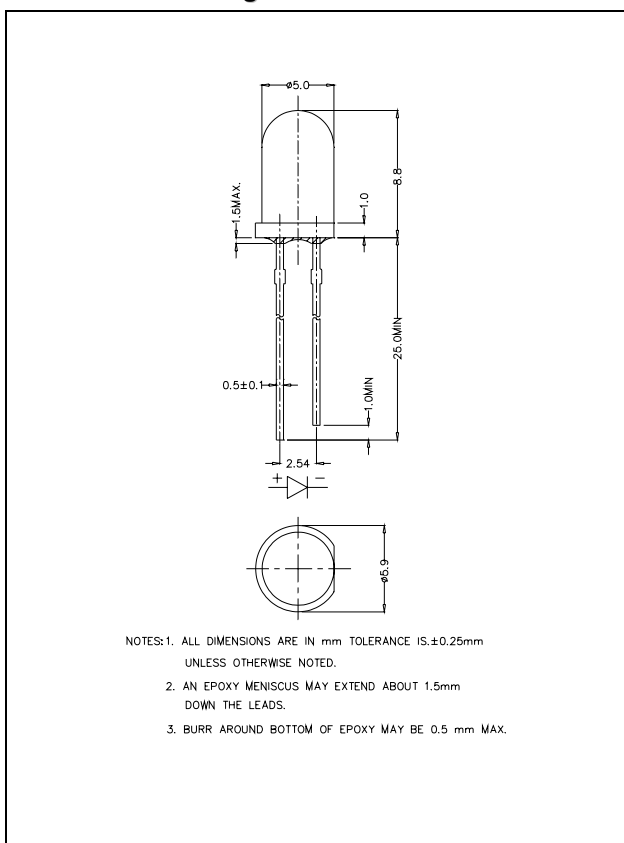
MODEL No : FC515ADYG21



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

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

## Dimension Drawing



## Applications

- Advertising Signs
- Indicators
- Moving Message Sign

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

Items	Symbol	Absolute maximum Rating	Unit
Forward Current <sup>*2</sup>	$I_F$	30	mA
Peak Forward Current <sup>*1</sup>	$I_{FP}$	100	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	80	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)	

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

\*2 For long term performance the drive currents between 10mA and 30mA are recommended. Please contact LITEFO sales representative for more information on recommended drive conditions.

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	---	2.1	2.6	V
Reverse Current	$I_R$	$V_R = 5\text{V}$	---	---	100	$\mu\text{A}$
Dominant Wavelength	$\lambda_D$	$I_F = 20\text{mA}$	---	572	---	nm
Luminous Intensity	$I_v$	$I_F = 20\text{mA}$	770	1500	---	mcd
50% Power Angle	$20\frac{1}{2}$ H-H	$I_F = 20\text{mA}$	---	15	---	deg

## Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by LITEFO.
- 2) Pb content  $< 1000\text{PPM}$ .
- 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  $\pm 0.05\text{V}$ .

## Graphs

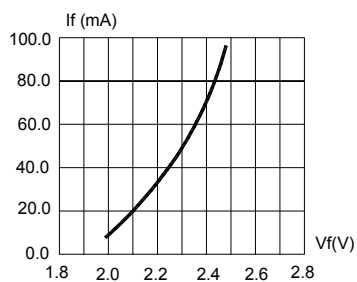


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

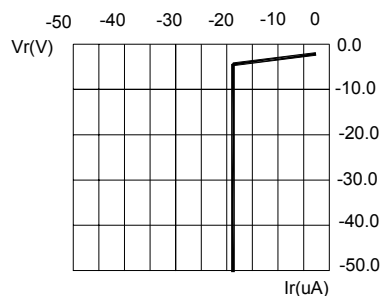


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

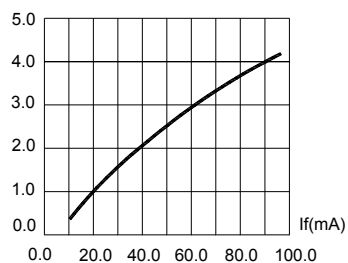


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

Half Power  $\Delta WL=30nm$

Domi WL= 573nm

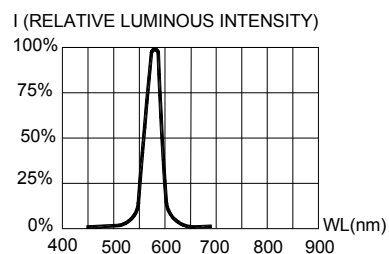


FIG.5 RELATIVE LUMINOUS INTENSITY VS. Wavelength (WL in nm).

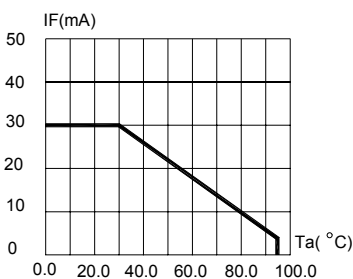


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE ( $T_{jmax}=105^{\circ}C$ )

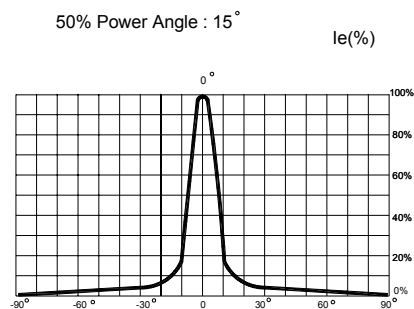


FIG.6 FAR FIELD PATTERN

Items	Signatures	Date	Revision History	
Prepared by	Lois	2004/10/07	DOC. No.	CHANGE DESCRIPTION
Checked by	Jarvis	2004/10/07	02 07Oct04	Add ESD, Pb Free Sign and Notes; Change FIG.1&3&5
Approved by	D.W.Liu	2004/10/07		
ECN#	ECN-H20040274			

Data is subject to change without prior notice.

Obsoletes Doc: A 22Apr04.