



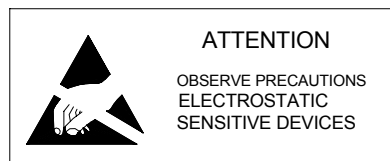
SPECIFICATION

Description:

25 Degree 5mm LITEFO Lamp in High
Red Color with Water Transparent
Lens and Stopper

Dice Material: AlGaInP

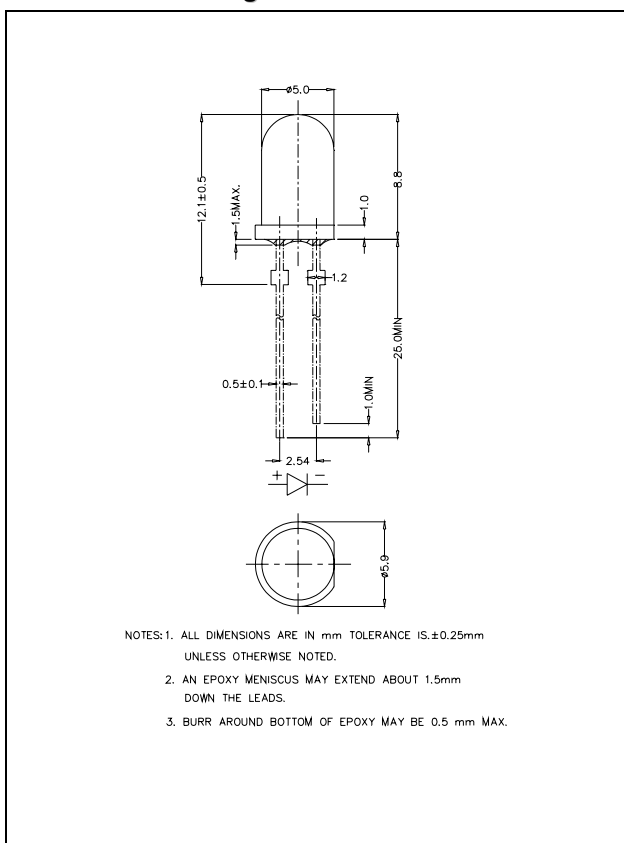
MODEL No : FC525ATHR11



Confirmed
by Customer: _____

Date: _____

Dimension Drawing



Applications

- Advertising Signs
- Indicators
- Traffic
- Automotive Lighting

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

Items	Symbol	Absolute maximum Rating	Unit
Forward Current ^{*2}	I_F	50	mA
Peak Forward Current ^{*1}	I_{FP}	200	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	130	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	$I_F = 20\text{mA}$	---	2.3	2.6	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	100	μA
Dominant Wavelength	λ_D	$I_F = 20\text{mA}$	620	628	635	nm
Luminous Intensity	I_v	$I_F = 20\text{mA}$	1520	3300	---	mcd
50% Power Angle	$2\theta_{1/2}$ H-H	$I_F = 20\text{mA}$	---	25	---	deg

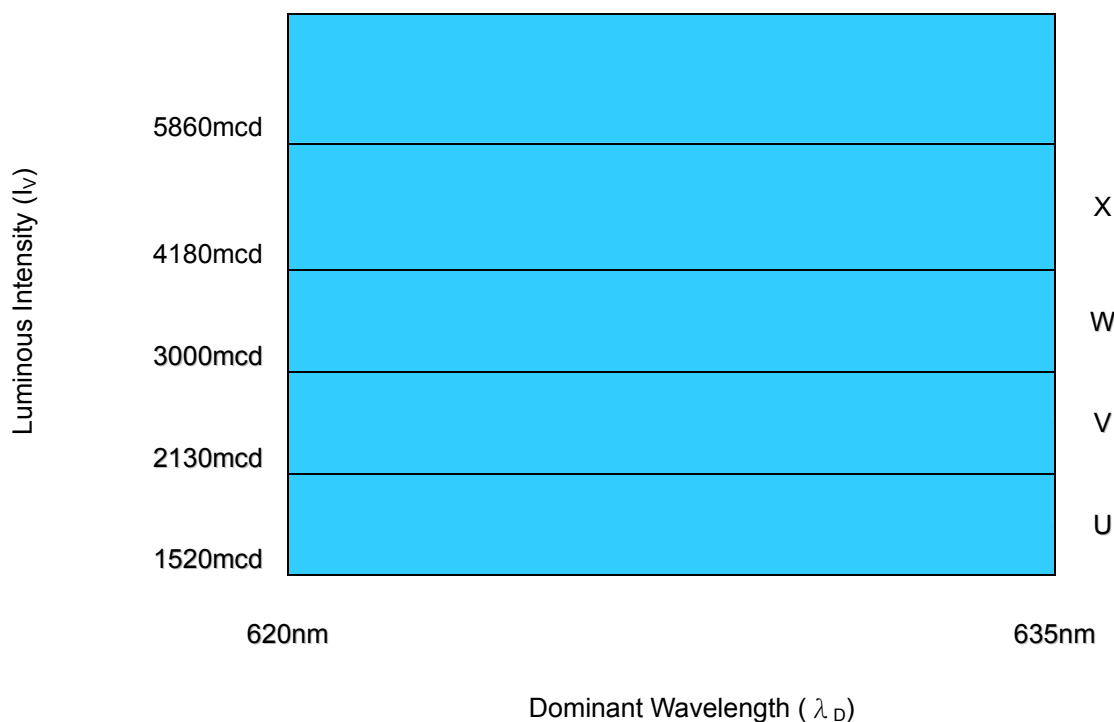
Standard bins for FC525ATHR11 ($I_F = 20\text{mA}$):

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

Orders for FC525ATHR11 may be filled with any or all bins contained as below.

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

* **U+**



* U+ indicates Luminous Intensity is at U bin or above.

Forward Voltage (V_F)

Rank	V2	V3	V4	V5
Voltage	1.8-2.0V	2.0-2.2V	2.2-2.4V	2.4-2.6V

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 $\pm 0.05\text{V}$.

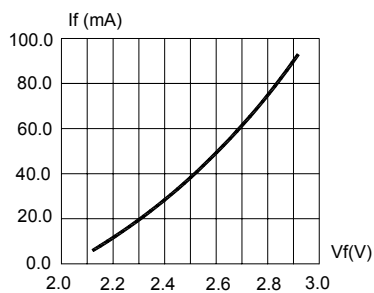


FIG. 1 FORWARD CURRENT VS. FORWARD VOLTAGE.

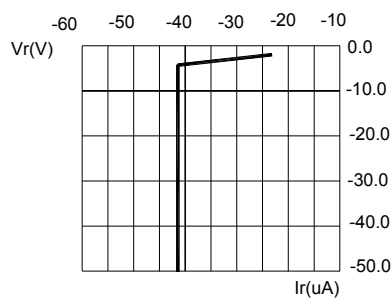


FIG. 2 REVERSE CURRENT VS. REVERSE VOLTAGE.

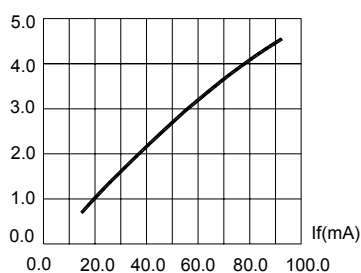


FIG. 3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

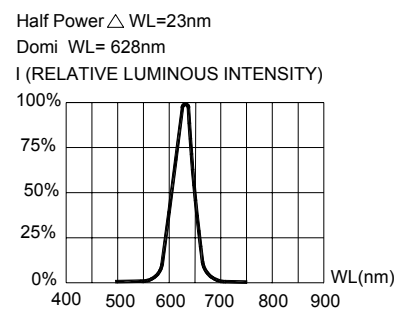


FIG. 4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

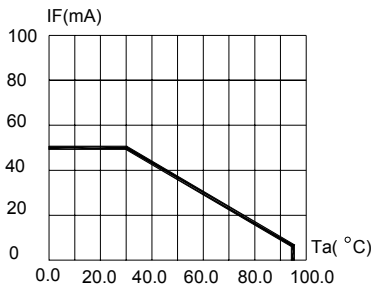


FIG. 5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE ($T_{jmax}=105^{\circ}\text{C}$)

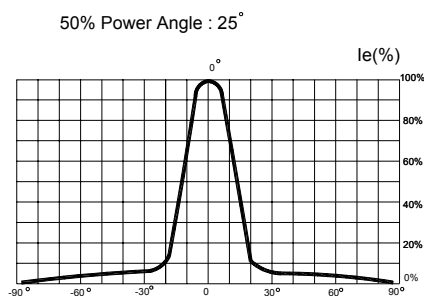


FIG. 6 FAR FIELD PATTERN

Items	Signatures	Date	Revision History	
Prepared by	Lois	2004/10/06	DOC. No.	CHANGE DESCRIPTION
Checked by	Jarvis	2004/10/06	02 06Oct04	Add ESD and Notes; Change FIG.1&3&5; Change IV & λ_D Rank form
Approved by	D.W.Liu	2004/10/06		
ECN#	ECN-H20040274			

Data is subject to change without prior notice.

Obsoletes Doc: A 15Jul04.