



SPECIFICATION

Description:

80 Degree 7.6 x 7.6mm LITEFO Lamp
in High Red Color with Water
Transparent Lens and Stopper

Dice Material: AlGaInP

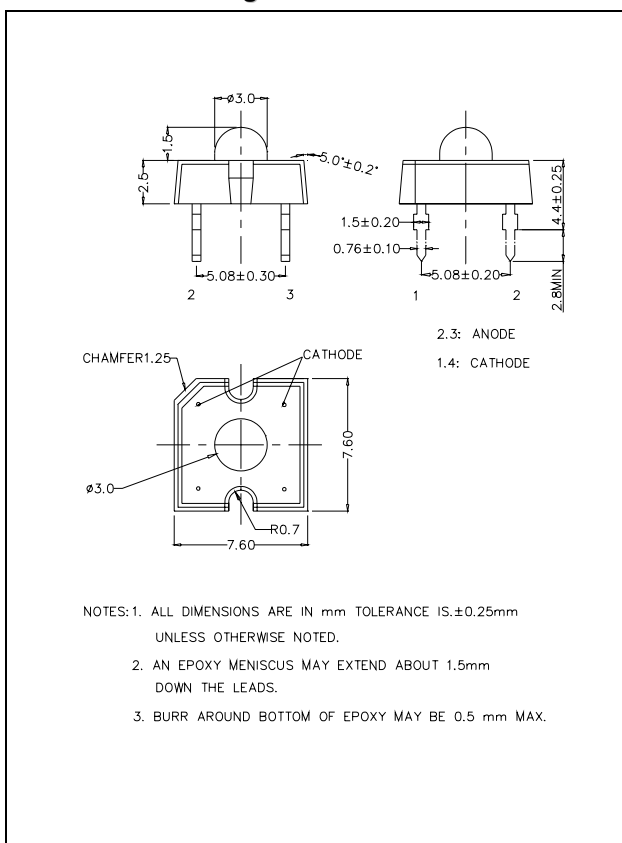
MODEL No : FP380AMHR11



Confirmed
by Customer: _____

Date: _____

Dimension Drawing



Applications

- Advertising Signs
- Indicators
- Traffic
- Automotive Lighting

Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute maximum Rating	Unit
Forward Current ^{*2}	I _F	70	mA
Peak Forward Current ^{*1}	I _{FP}	200	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	180	mW
Operation Temperature	T _{opr}	-40 ~ +100	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	Max.260°C for 5 sec Max. (3mm from the base of the epoxy bulb)	

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

*2 Heat sink is recommended to be adequated if the device is operated at ambient temperatures higher than 25 deg C. For long term performance the drive currents between 10mA and 50mA are recommended. Please contact LITEFO sales representative for more information on recommended drive conditions.

Typical Electrical & Optical Characteristics (Ta = 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 70\text{mA}$	---	2.1	2.6	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	100	μA
Dominant Wavelength	λ_D	$I_F = 70\text{mA}$	620	624	628	nm
Luminous Flux	Φ_V	$I_F = 70\text{mA}$	1000	1800	---	mlm
50% Power Angle	$2\theta_{1/2}$ H-H	$I_F = 70\text{mA}$	---	80	---	deg

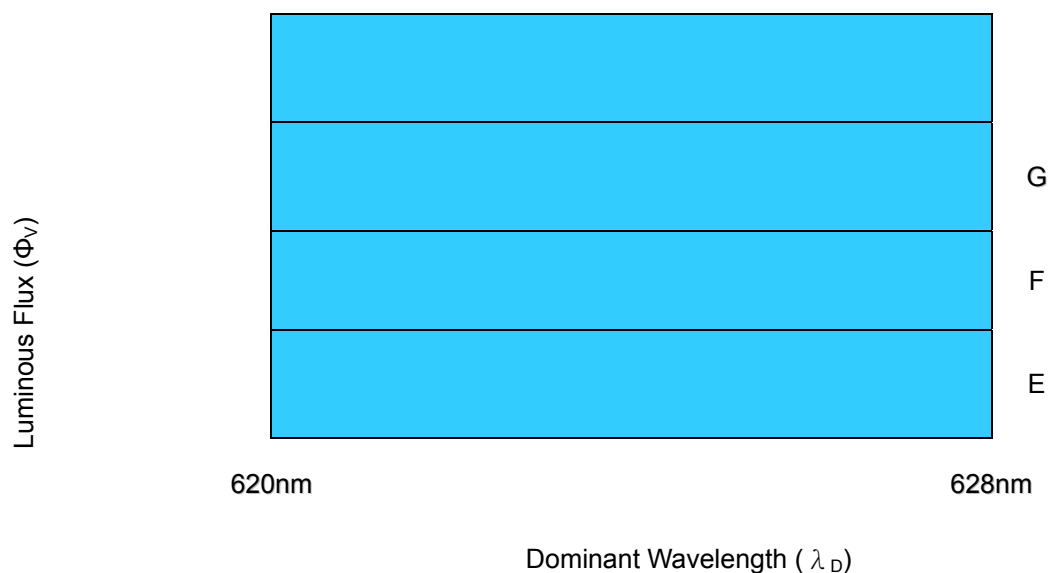
Standard bins for FP380AMHR11 ($I_F = 70\text{mA}$):

Lamps are sorted to Luminous Flux – Φ_V , V_F & Dominant Wavelength – λ_D bins shown.

Orders for FP380AMHR11 may be filled with any or all bins contained as below.

All Luminous Flux – Φ_V , V_F & Dominant Wavelength – λ_D values shown and specified are at $I_F=70\text{mA}$.

* **E+**



Rank	E	F	G
Luminous Flux	1000-1800 mlm	1500-2400 mlm	2000-3000 mlm

* E+ indicates Luminous Flux is at E bin or above.

Forward Voltage (V_F)

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

Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by LITEFO.
- 2) No tolerance in the measurement of luminous flux.
- 3) Tolerance of measurement of dominant wavelength is $\pm 1\text{nm}$.
- 4) Tolerance of measurement of V_f is $\pm 0.05\text{ V}$.

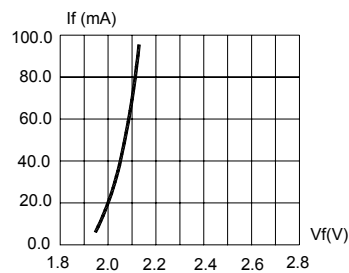


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

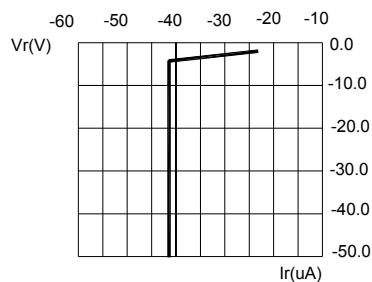


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

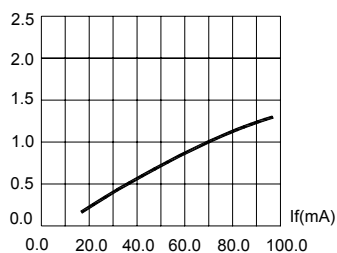


FIG.3 RELATIVE LUMINOUS FLUX VS. FORWARD CURRENT.

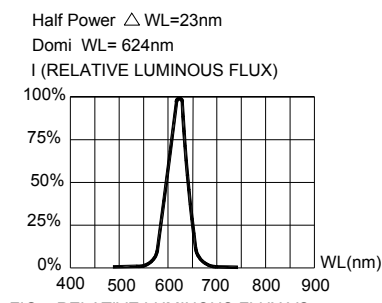


FIG.4 RELATIVE LUMINOUS FLUX VS. WAVELENGTH.

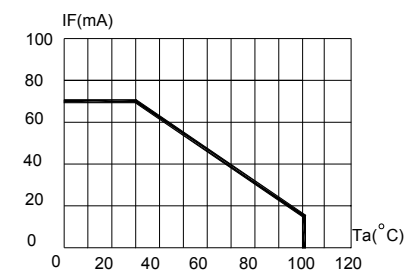


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE ($T_{jmax}=120^{\circ}C$)

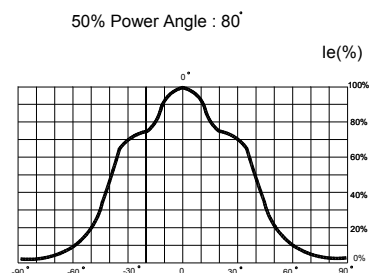


FIG.6 FAR FIELD PATTERN

Items	Signatures	Date	Revision History	
Prepared by	Lois	2004/10/13	DOC. No.	CHANGE DESCRIPTION
Checked by	Jarvis	2004/10/13	02 13Oct04	Add ESD and Notes; Change FIG.1&3&5; Change Φ_V & λ_D Rank form.
Approved by	D.W.Liu	2004/10/13		
ECN#	ECN-H20040276			

Data is subject to change without prior notice.

Obsoletes Doc: A 22Apr04.