



Ledman Optoelectronic Co., Ltd.

DATA SHEET

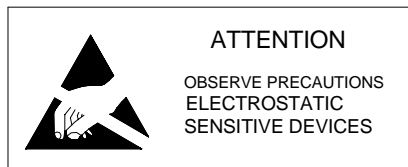
MODEL No : LL1501QUHR1-151
ENG. No: L0606003

Description:

- 5mm Round lamp
- Lens Color: Water Clear
- Emitting Color: Highr Red
- Viewing Angle :15°
- No Stopper

Dice Material: AlGaInP

PREPARED BY	CHECKED BY	APPROVED BY	CUSTOMER APPROVED SIGNATURES



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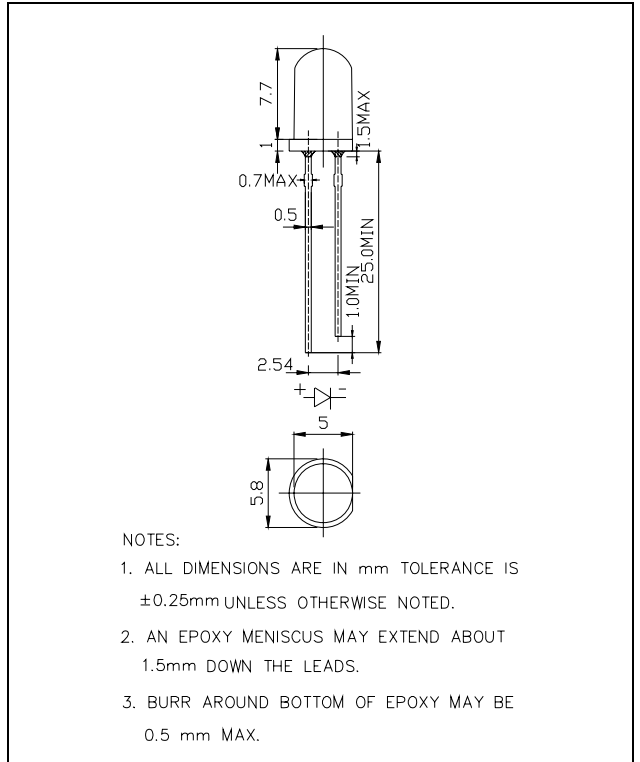
Model No.	LL1501QUHR1-151
Revision:	L0606003

Applications:

Dimension Drawing

Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I_F	50	mA
Peak Forward Current*	I_{FP}	200	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	130	mW
Operation Temperature	T_{opr}	-40 ~ +95	°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)	



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

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$	1.7	2.0	2.6	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	10	μA
Dominant Wavelength	λ_D	$I_F = 20\text{mA}$	---	624	---	nm
Luminous Intensity	I_v	$I_F = 20\text{mA}$	---	10000	---	mcd
50% Power Angle	$2\theta_{H-H}$	$I_F = 20\text{mA}$	---	15	---	deg
	$2\theta_{V-V}$	$I_F = 20\text{mA}$	---	--	---	deg

Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by LEDMAN.
- 2) Tolerance of measurement of luminous intensity is $\pm 15\%$.
- 3) Tolerance of measurement of dominant wavelength is $\pm 1\text{nm}$.
- 4) Tolerance of measurement of V_f is $\pm 0.05\text{V}$.
- 5) Packaging methods are available for selection, please refer to PACKAGING STANDARD.
- 6) Please refer to LED LAMP RELIABILITY TEST STANDARD for reliability test conditions.



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Typical Optical-Electronic Characteristic Curves

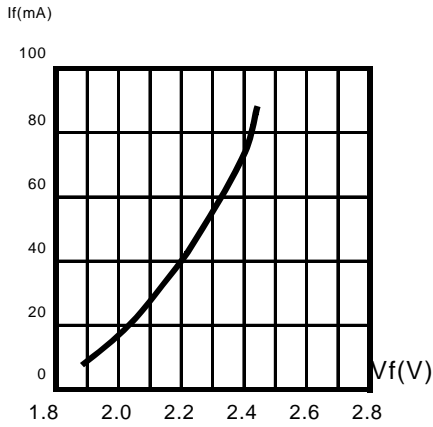


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

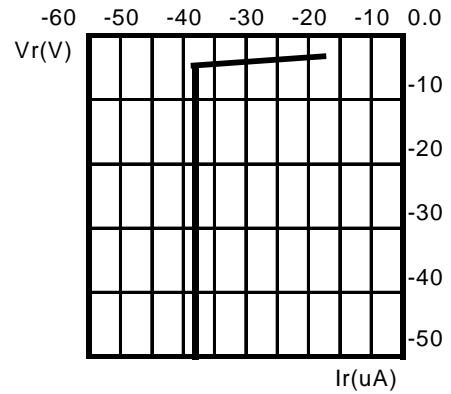


Fig.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

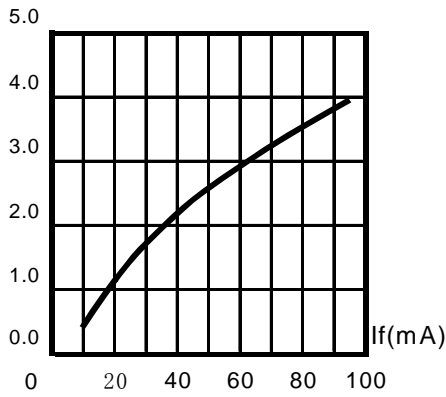
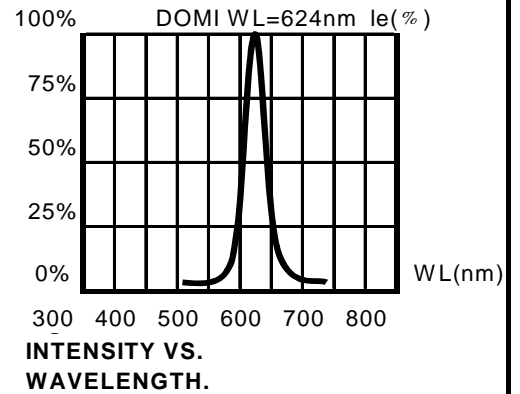


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.



50% POWER ANGLE

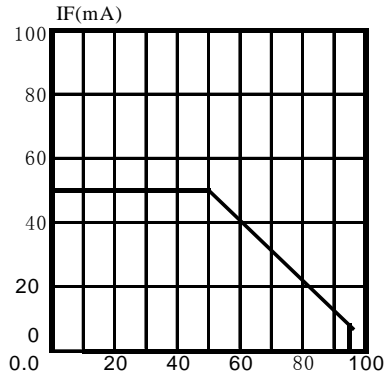


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE(Tjmax=105°C)

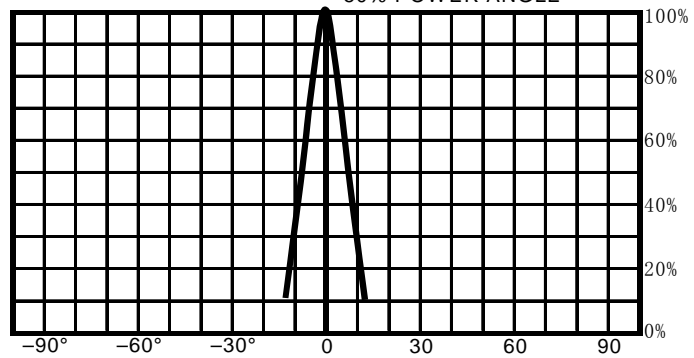


Fig.6 FAR FIELD PATTERN

Items	Signatures	Date
Prepared by	Zhao Meiling	06-06-2006
Checked by		
Approved by		

R&D ISSUE