

**SPECIFICATION FOR LED LAMP**

MODEL No : WCN-501HR4-50N  
DOC. No : LED-501HR4-50N

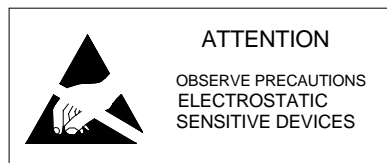
Description:

50 Degree 5mm LED Lamp in Red  
Color With Tinted, Diffused Lens  
without Stopper

Dice Material: AlGaInP

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

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



**Applications:**

- Advertising Signs
- Indicators
- 
- 

**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 3 sec Max. (3mm from the base of the epoxy bulb)	

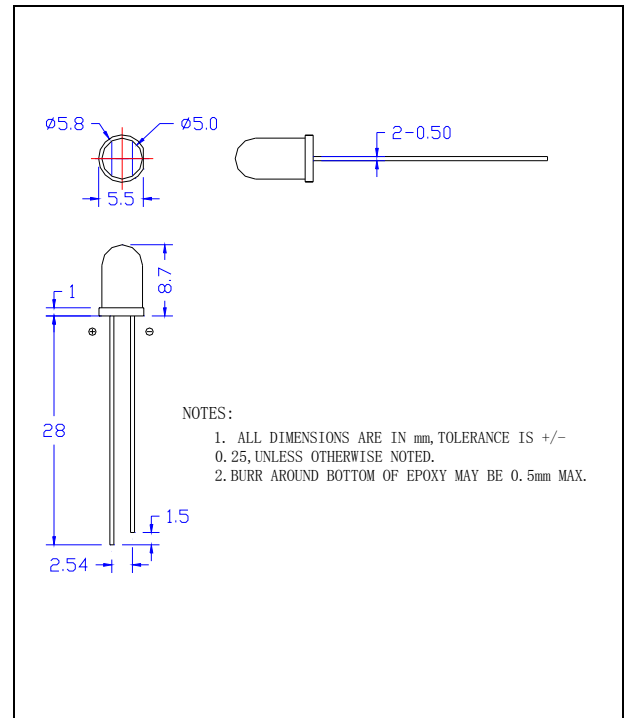
pulse width  $\leq 0.1\text{msec}$  duty  $\leq 1/10$

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	---	2.1	2.6	V
Reverse Current	$I_R$	$V_R = 5\text{V}$	---	---	50	$\mu\text{A}$
Luminous Intensity	$I_V$	$I_F = 20\text{mA}$	---	100	---	mcd
Dominant Wavelength	$\lambda_d$	$I_F = 20\text{mA}$	625	633	640	nm
Spectral Line Half-Width	$\Delta \lambda$	$I_F = 20\text{mA}$	---	26	---	nm
50% Power Angle	$2\theta_{\frac{1}{2}}$	$I_F = 20\text{mA}$	---	50	---	deg

**Important Notes:**

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

**Dimension Drawing**


**Graphs**

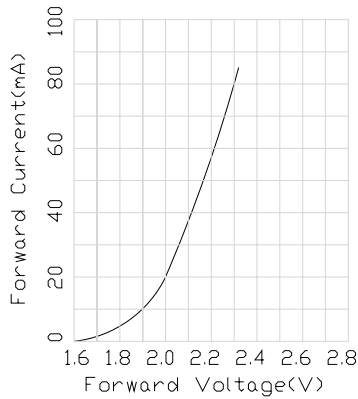


Fig.1 Forward Current vs. Forward Voltage

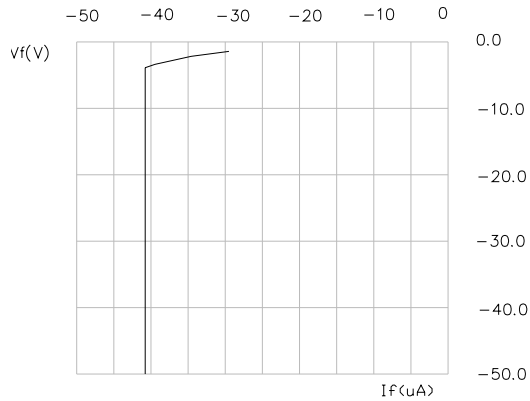


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

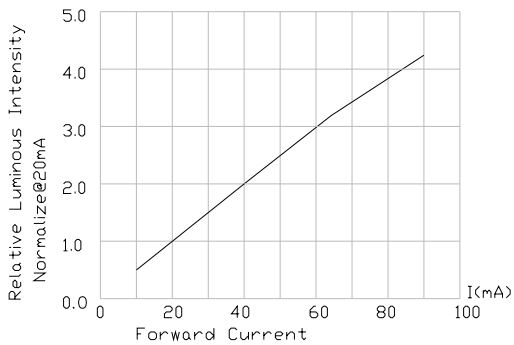


Fig.3 Relative Luminous Intensity vs. Forward Current

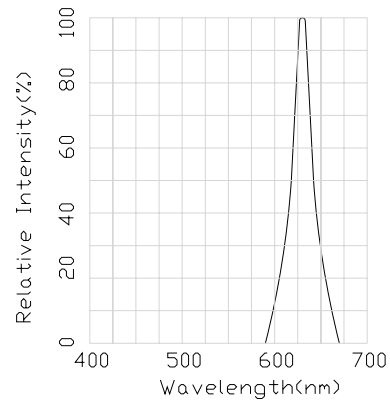


FIG.4 Relative Luminous Intensity vs. Wavelength

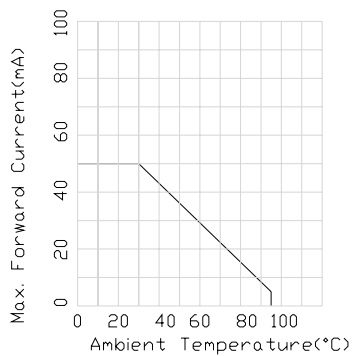


FIG.5 Maximum Forward DC Current vs. Ambient Temperature

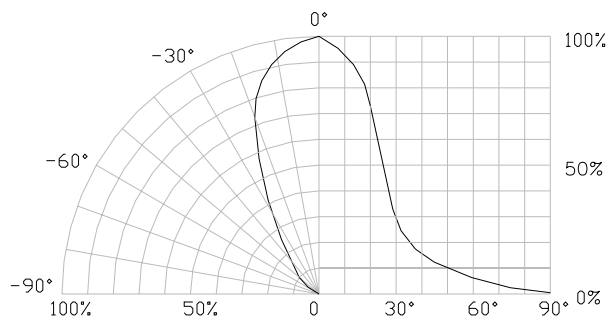


Fig.6 Relative Luminous Intensity vs. Radiation Angle

Items	Signatures	Date	Revision History	
Prepared by			DOC. No.	CHANGE DESCRIPTION
Checked by				
Approved by				
ECN#				

Data is subject to change without prior notice.