



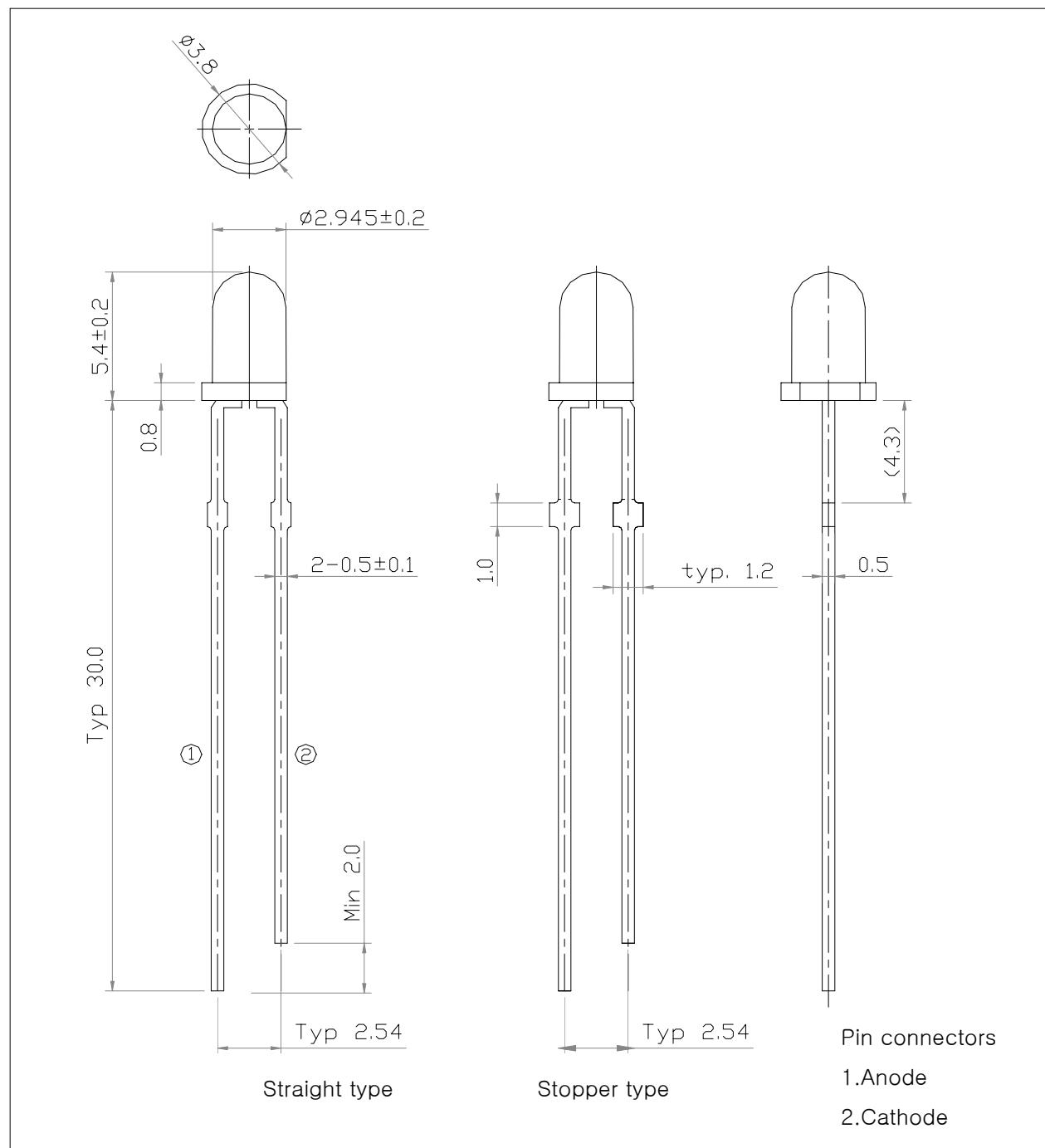
LBH3000
High Brightness LED Lamp

■ Features

- Colorless transparency lens type
- $\phi 3\text{mm}$ (T-1) all plastic mold type
- High luminosity
- ESD Class(Mil Std-883d Method 3015.7) based on Human Body Model(HBM) : 950V

■ Outline dimensions

(unit : mm)



Different and Better

■ Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Power dissipation	P _D	120	mW
Forward Current	I _F	30	mA
* ¹ Peak Forward Current	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-30~85	°C
Storage Temperature	T _{stg}	-40~100	°C
* ² Soldering Temperature	T _{sol}	260 °C for 3 seconds	

*1.Duty ratio 1/10, Pulse Width 10msec

*2.Keep the distance more than 2.0mm from PCB to the bottom of LED package

■ Electrical – Optical characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
ESD Check Forward Voltage	V _{F2}	I _F = 10μA	2.0	–	–	V
Reverse Current	I _R	V _R =5V	–	–	50	uA
Dominant Wavelength	λ _d	I _F = 20mA	465	–	475	nm
Spectrum Bandwidth	Δλ	I _F = 20mA	–	35	–	nm
* ³ Half Angle	θ1/2	I _F = 20mA	–	±15	–	deg

*3. θ1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

■ Dominant Wavelength

(Ta=25°C)

W _D RANK	Test Condition	Min.	Typ.	Max.	Unit
A	I _F = 20mA	465	–	470	nm
B		470	–	475	

* Wavelength are tested at a current pulse duration 25ms and an accuracy of ±1 nm.

■ Luminous intensity ranks

(Ta=25°C)

I _v RANK	Test Condition	Min.	Typ.	Max.	Unit
M	I _F = 20mA	420	–	600	mcd
N		600	–	850	
O		850	–	1200	
P		1200	–	1700	

* Luminous intensity is tested at a current pulse duration of 25 ms and an accuracy of ±11%.

Intensity Measured : 0.01sr(CIE. LED_B)

■ Forward Voltage

(Ta=25°C)

V _F RANK	Test Condition	Min.	Typ.	Max.	Unit
1	I _F = 20mA	–	3.1	3.3	V
2		3.3	3.5	3.8	

* Voltages are tested at a current pulse duration of 1 ms and an accuracy of ±0.1V.

■ Precautions On LED using

* To avoid optical difference, Please do not mix differently-ranked product.

■ Characteristic Diagrams

Fig. 1 I_F - V_F

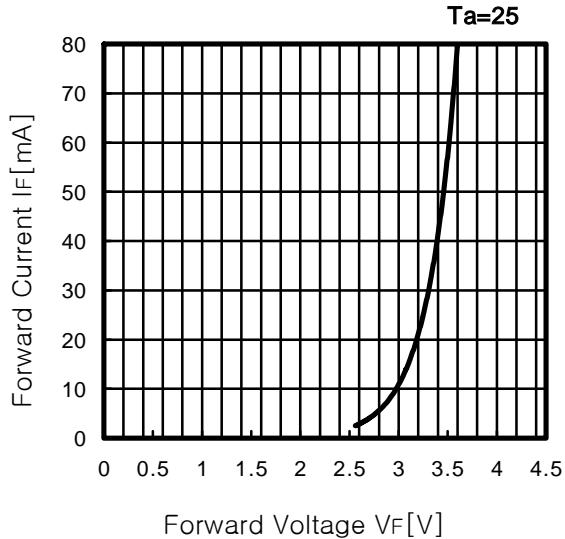


Fig. 2 I_V - I_F

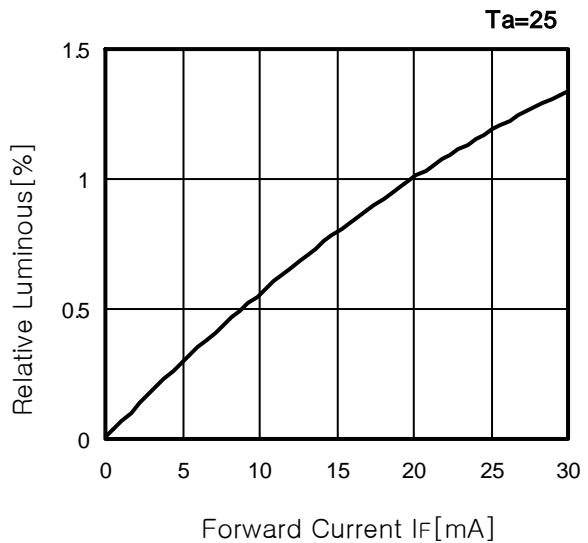


Fig. 3 I_F - T_a

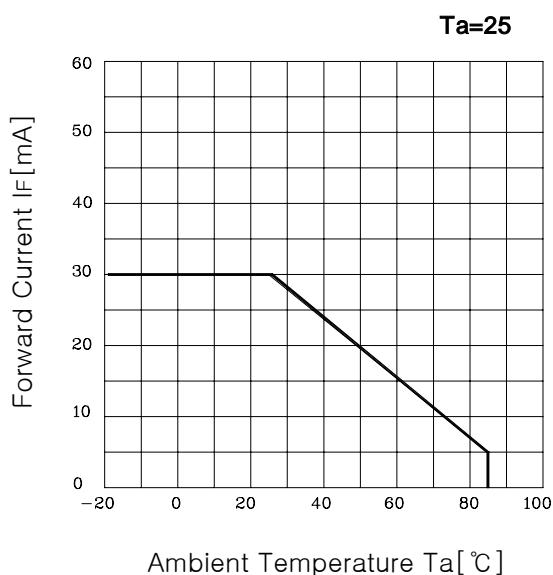


Fig. 4 Spectrum Distribution

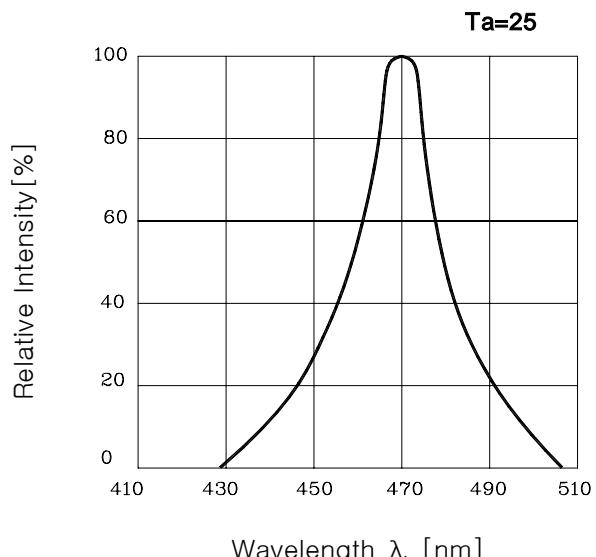
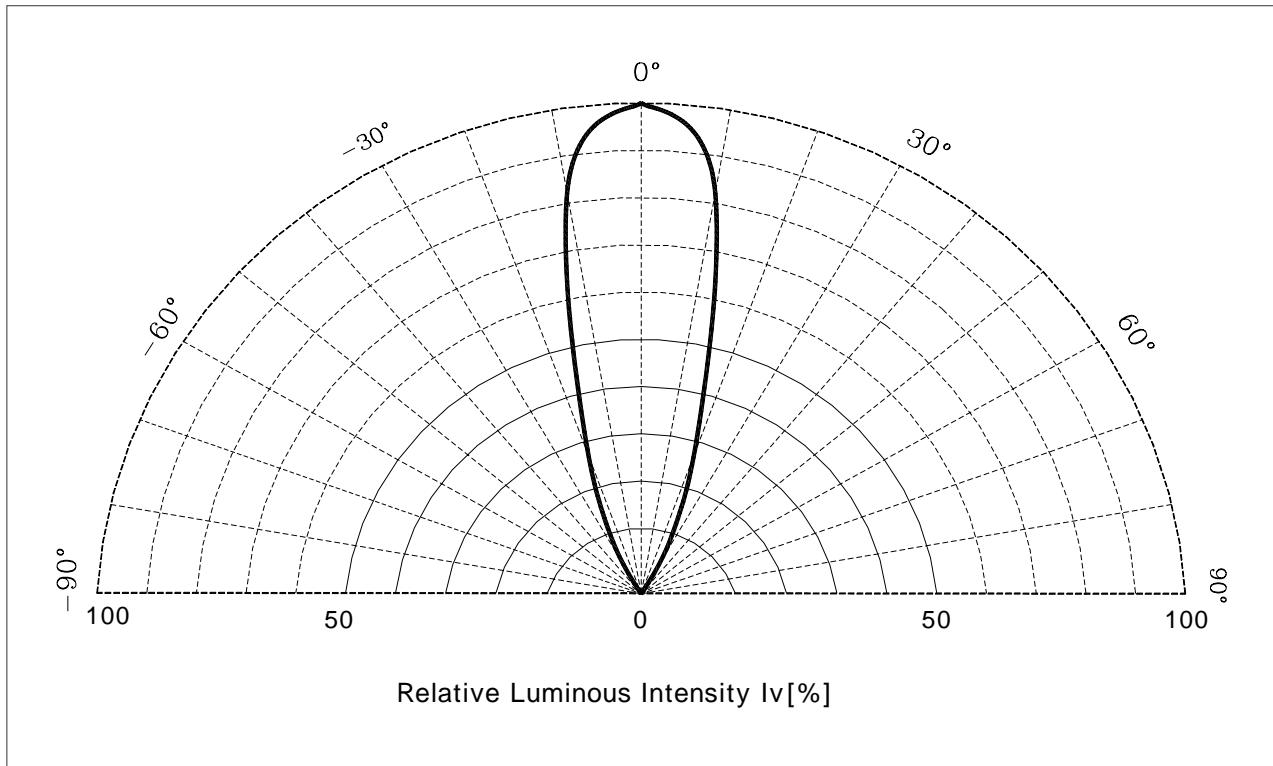


Fig. 5 Radiation Characteristics

■ Revision history sheet

Spec NO.			
Title	Specification for Approval		
Times	Date	Summary of revision	Remarks
1	2001. 07. 15	신규제정	
2	2003. 02. 26	Format 변경	
3	2004. 06. 03	Iv Rank 변경	