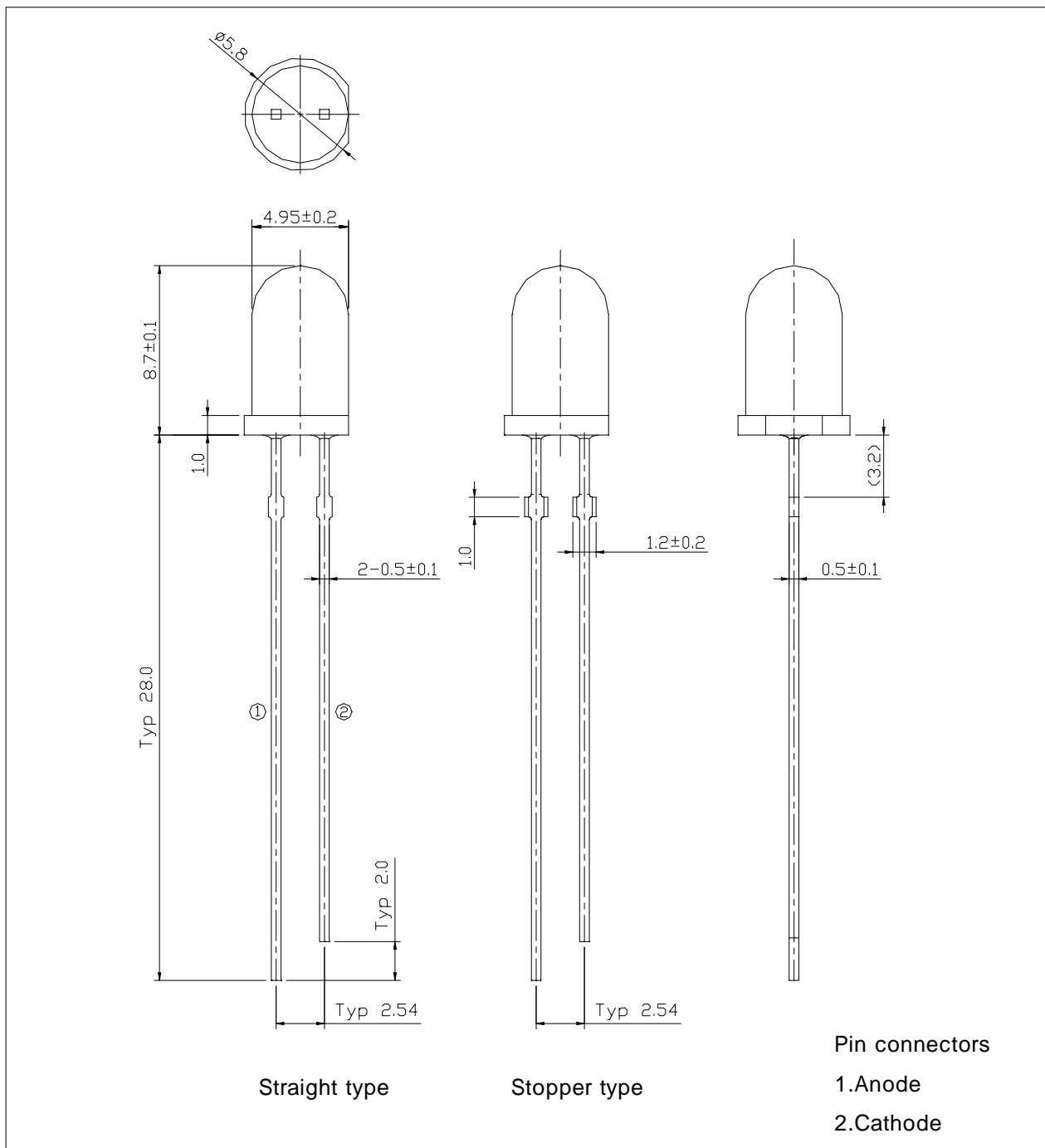


## Features

- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-1 $\frac{3}{4}$ ) 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)



### Absolute maximum ratings

(Ta=25 °C)

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	
Storage Temperature	$T_{stg}$	-40 100	
*2 Soldering Temperature	$T_{sol}$	260 for 3 seconds	

\*1. Duty ratio = 1/16, Pulse width = 0.1ms

\*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	$V_{F2}$	$I_F = 10\mu A$	2.0	-	-	V
Reverse Current	$I_R$	$V_R = 5V$	-	-	50	$\mu A$
Dominant Wavelength	$\lambda_d$	$I_F = 20mA$	465	-	475	nm
Spectrum Bandwidth		$I_F = 20mA$	-	35	-	nm
*3 Half Angle	$\theta_{1/2}$	$I_F = 20mA$	-	$\pm 10$	-	deg

\*3.  $\theta_{1/2}$  is the off-axis angle where the luminous intensity is 1/2 the peak intensity

### Dominant Wavelength

(Ta=25 )

W <sub>D</sub> RANK	Test Condition	Min.	Typ.	Max.	Unit
A	I <sub>F</sub> = 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 )

I <sub>v</sub> RANK	Test Condition	Min.	Typ.	Max.	Unit
Q	I <sub>F</sub> = 20mA	1700	-	2400	mcd
R		2400	-	3400	
S		3400	-	4800	

\* 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 )

V <sub>F</sub> RANK	Test Condition	Min.	Typ.	Max.	Unit
1	I <sub>F</sub> = 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 IF-VF

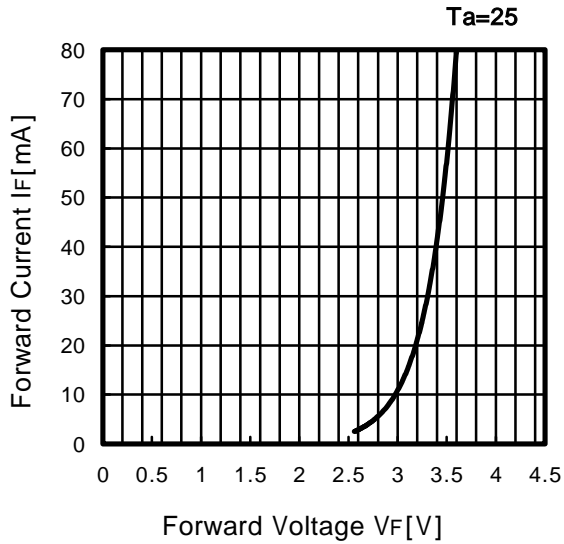


Fig. 2 IV-IF

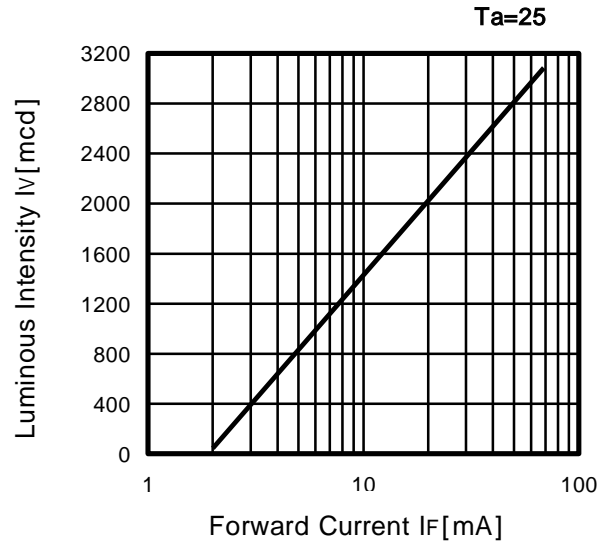


Fig. 3 IF-Ta

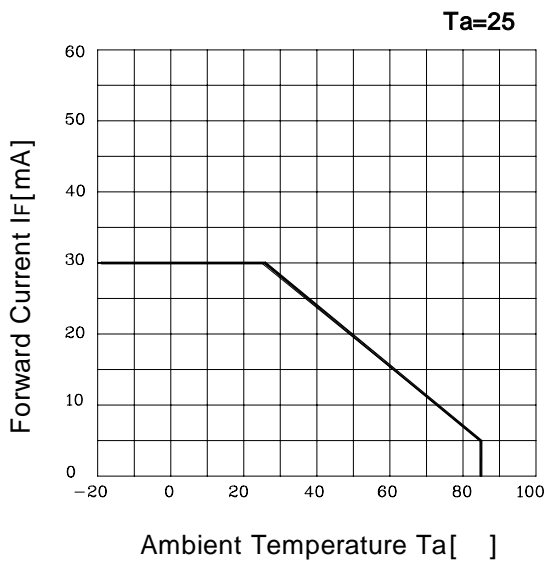


Fig. 4 Spectrum Distribution

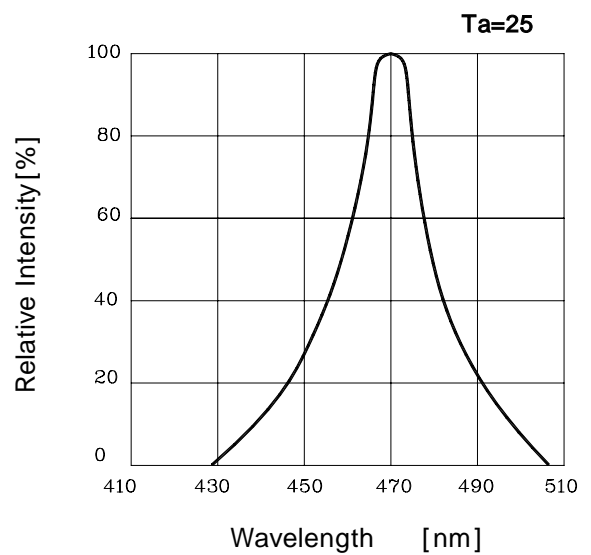
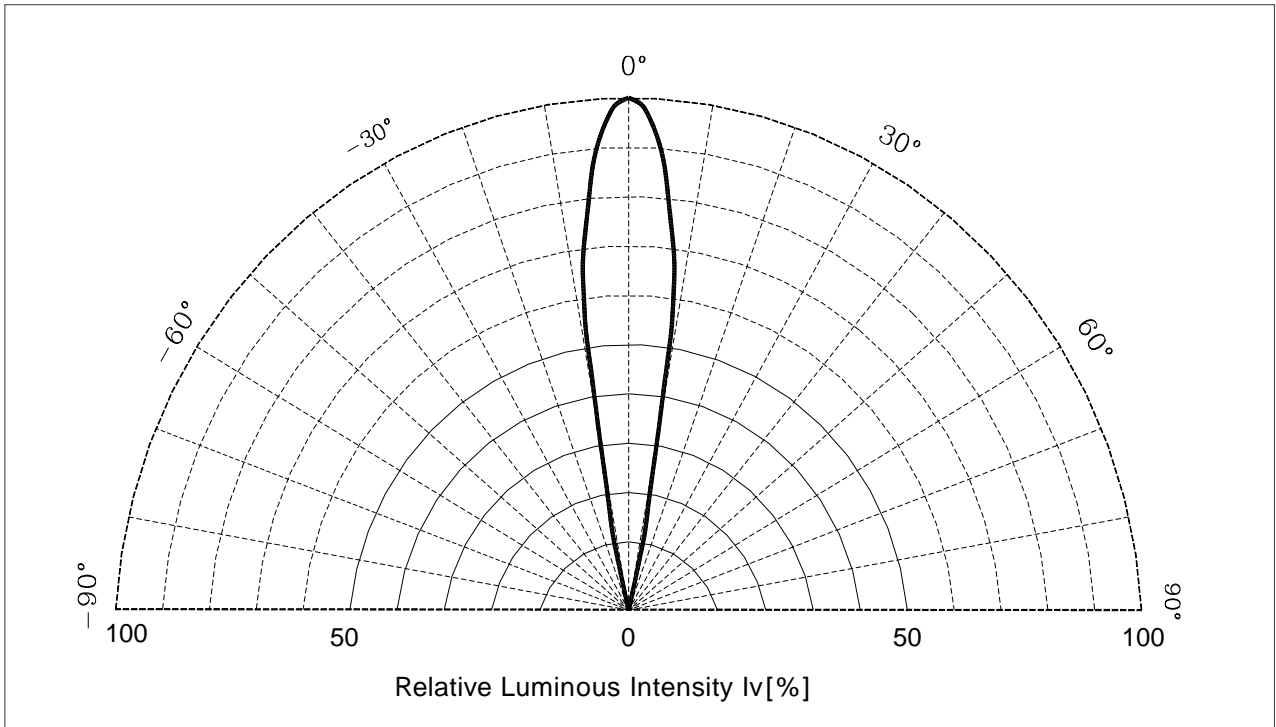


Fig. 5 Radiation Characteristics



## Revision history sheet

Spec NO.			
Title	Specification for Approval		
Times	Date	Summary of revision	Remarks
1	2001. 07. 15	Format	
2	2003. 02. 26		