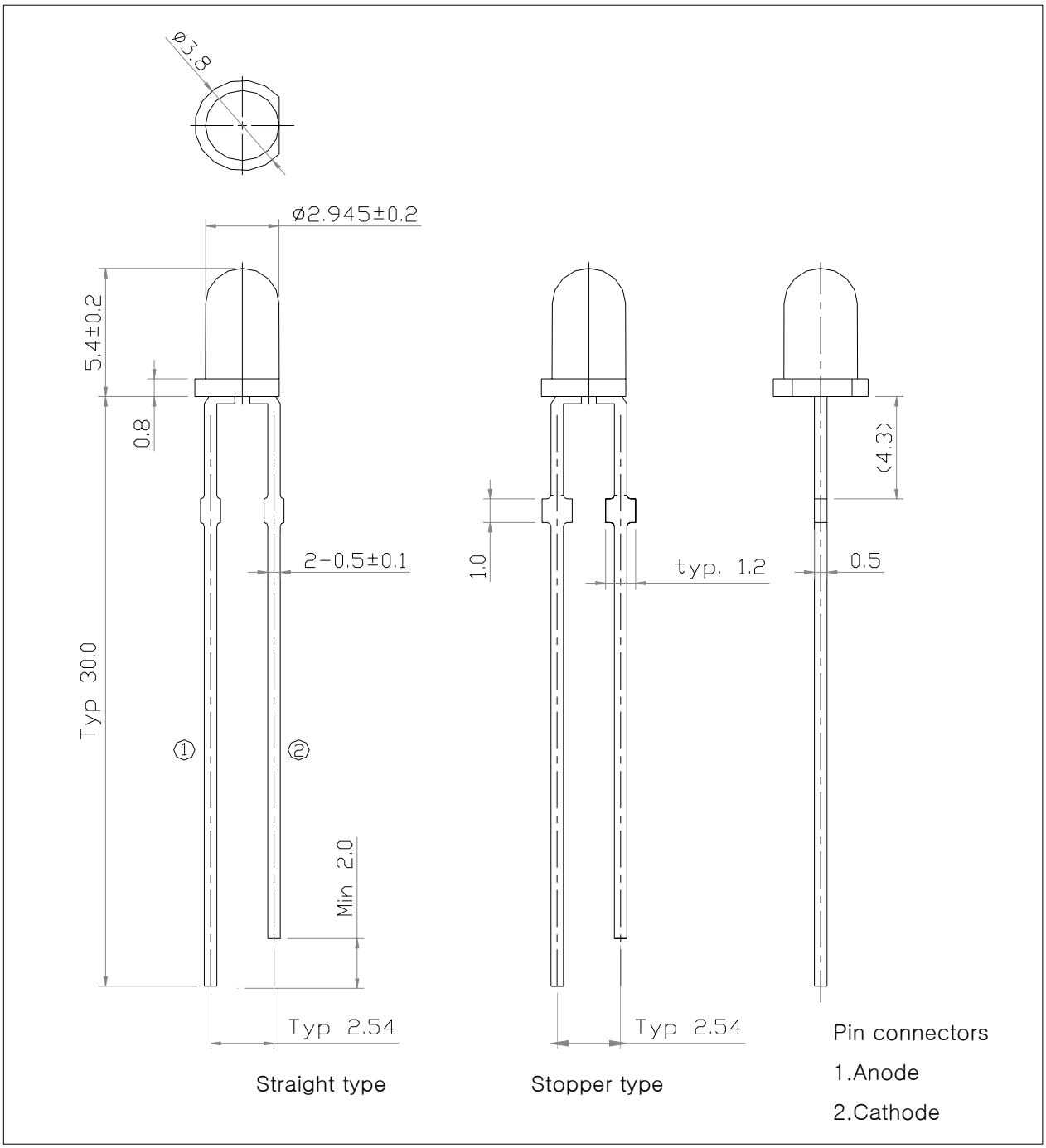
■ Features

- Colorless transparency lens type
- ϕ3mm(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)



■ 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	℃
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℃)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
*[3]Forward Voltage	V_F	I_F= 20mA	-	3.3	4.0	V
ESD Check Forward Voltage	V_{F2}	I_F= 10㎂	2.0	-	-	V
Reverse Current	I_R	V_R=5V	-	-	50	uA
*[4]Half Angle	θ1/2	I_F= 20mA	-	±17	-	deg

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

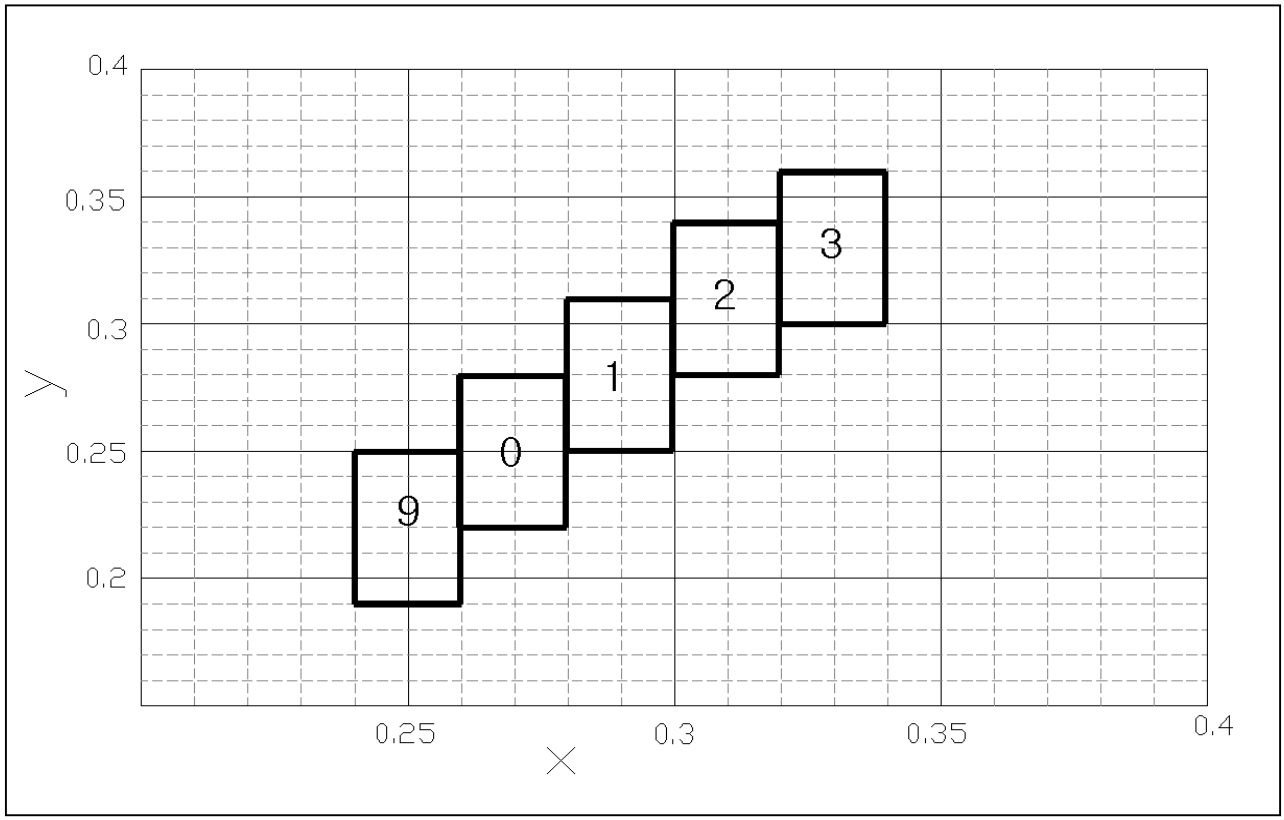
*4. θ1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

■ Chromaticity Coordinates ranks

(Ta=25℃)

Color RANK		Test Condition	Min.	Typ.	Max.
9	x	I_F= 20mA	0.24	-	0.26
	y		0.19	-	0.25
0	x		0.26	-	0.28
	y		0.22	-	0.28
1	x		0.28	-	0.30
	y		0.25	-	0.31
2	x		0.30	-	0.32
	y		0.28	-	0.34
3	x		0.32	-	0.34
	y		0.30	-	0.36

* The CIE standard colorimetric system



■ Luminous intensity ranks

(Ta=25℃)

Iv RANK	Test Condition	Min.	Typ.	Max.	Unit
Q	I_F= 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)

■ Precautions On LED using

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

■ Characteristic Diagrams

Fig. 1 IF-VF

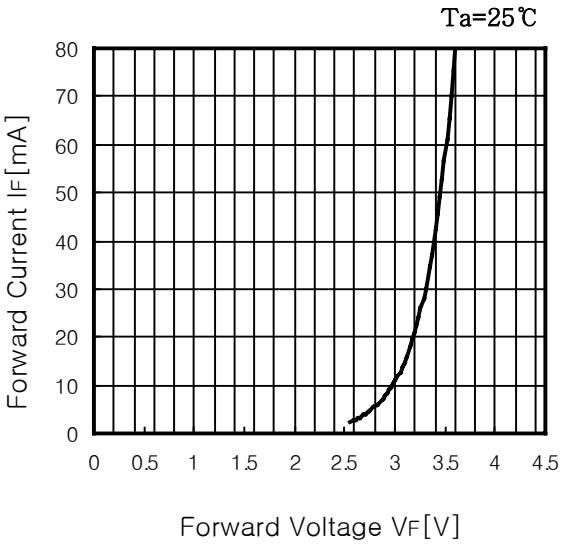


Fig. 2 Iv-IF

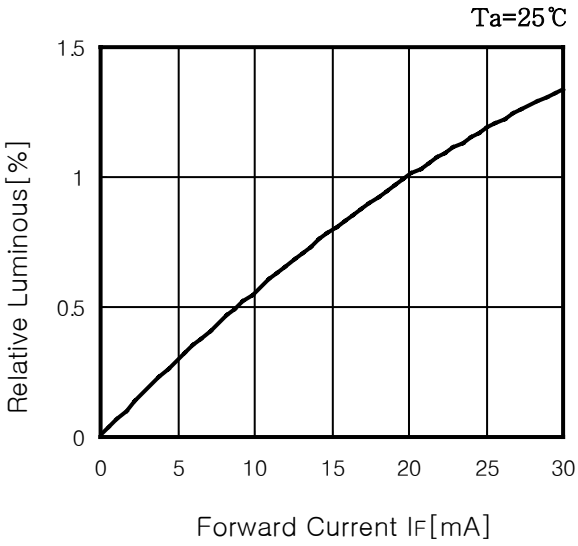


Fig. 3 IF-Ta

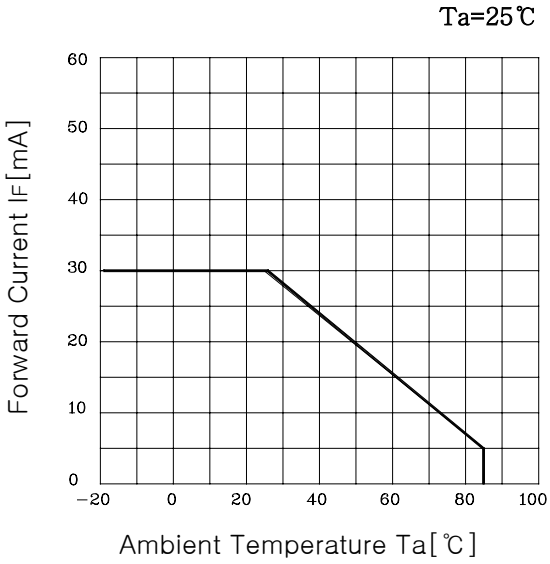


Fig. 4 Radiation Characteristics

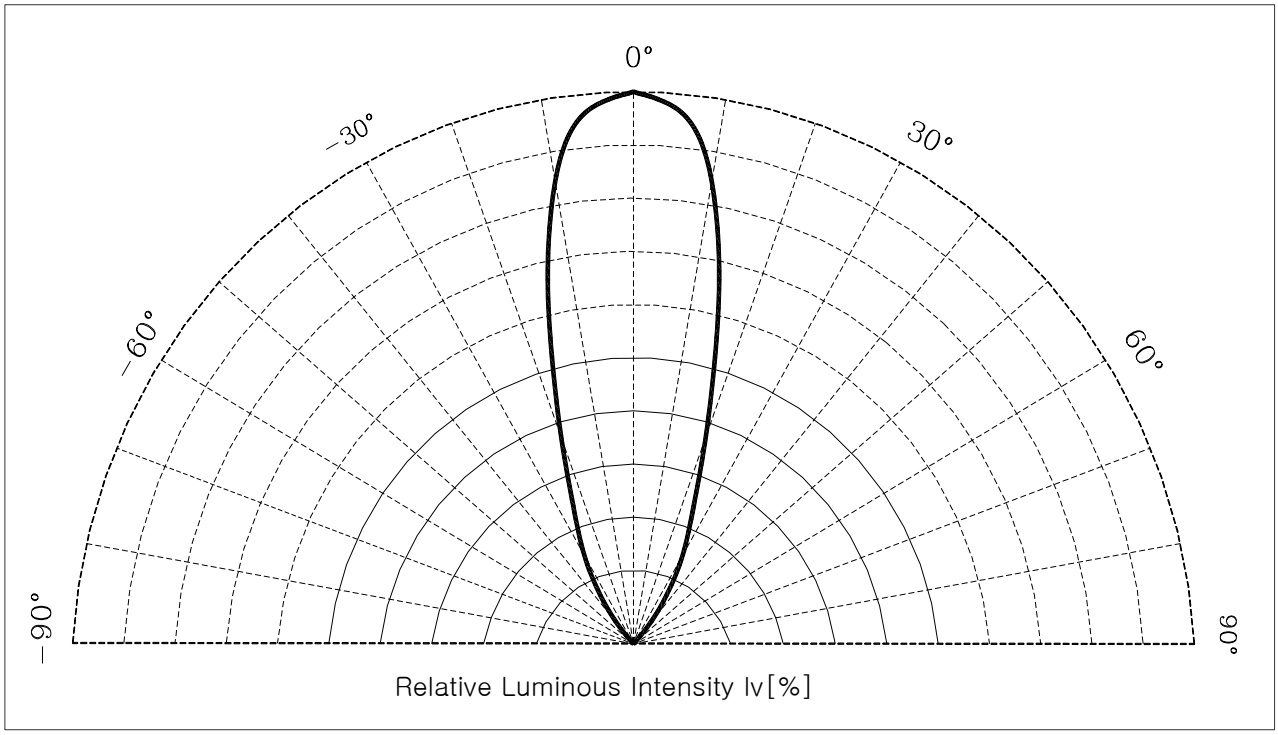
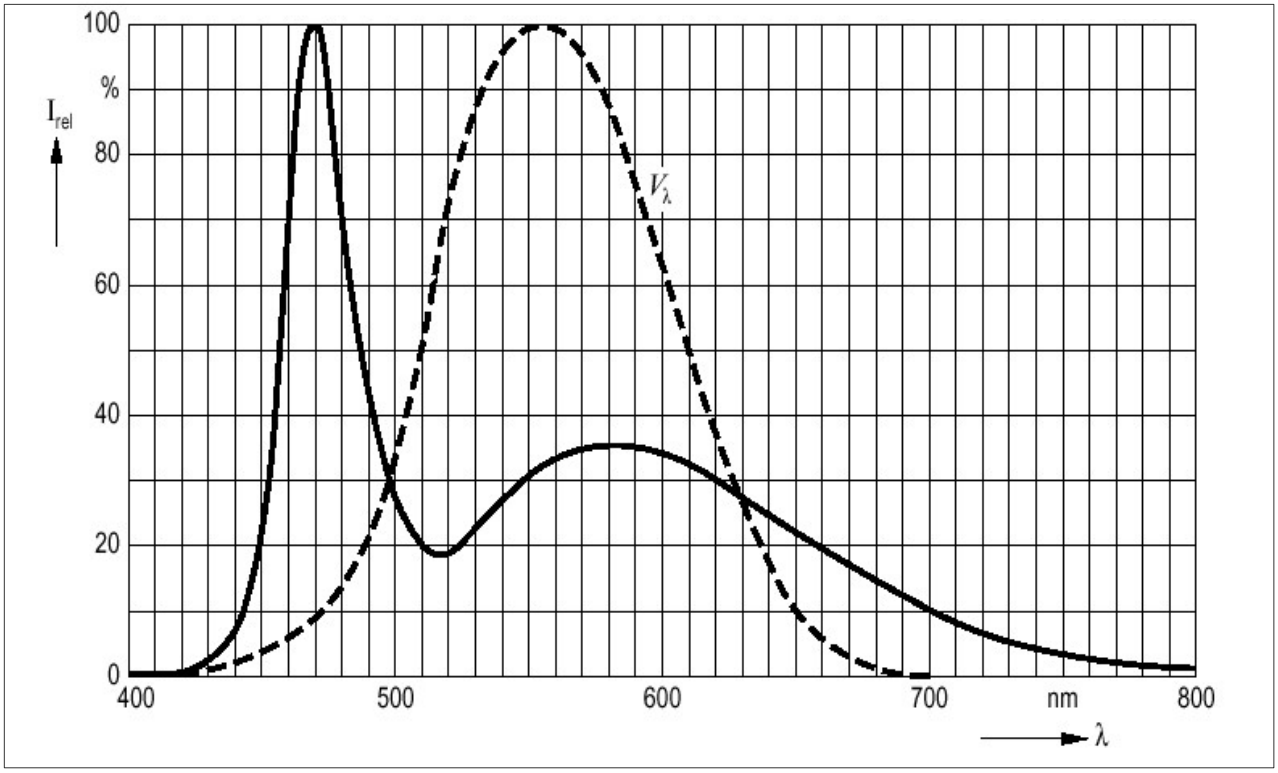


Fig. 5 Spectrum Characteristic

(Ta=25℃ , IF = 20mA)



■ 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	