

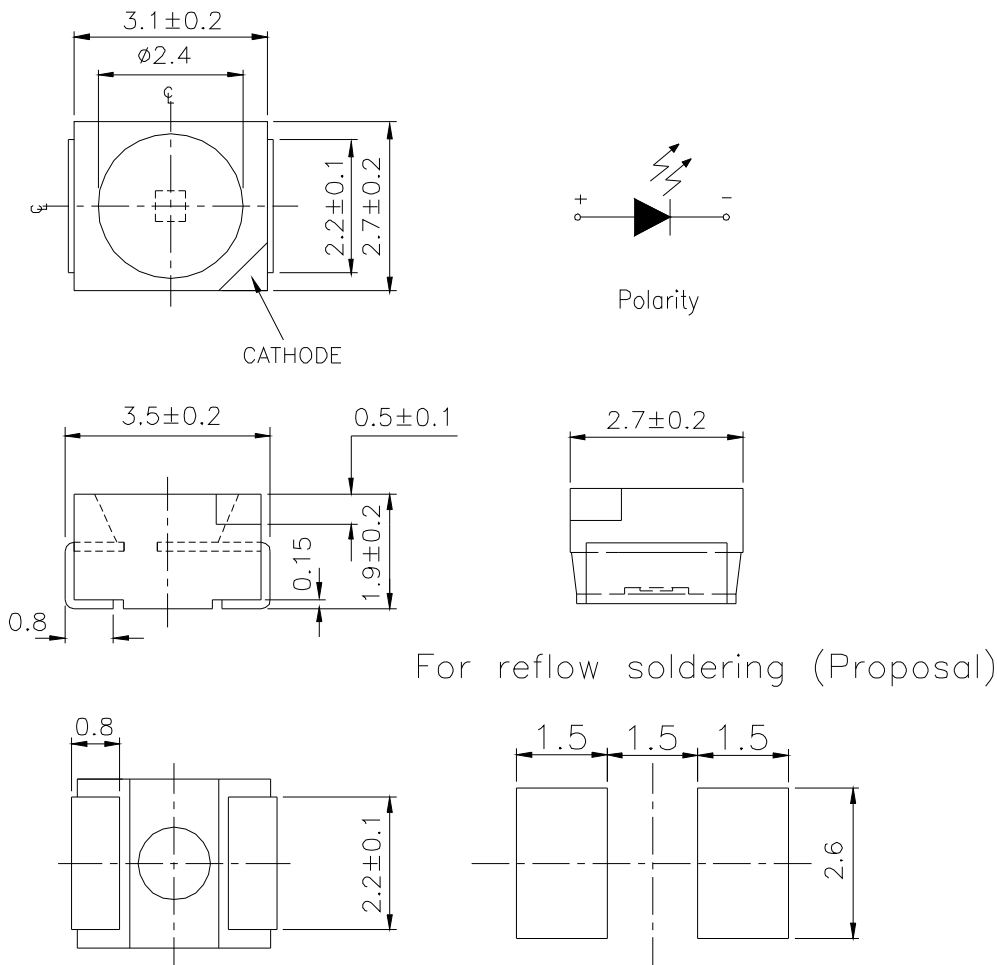
**Features**

- Fit automatic placement equipment.
- Fit Compatible with vapor-phase reflow, Infrared reflow and wave solder processes.
- White package.
- Pb-free.
- RoHS compliant.

**Descriptions**

- For higher packing density .
- For minature applications .
- Water clear lens .
- Chip material : AlGaInP .
- Emitting color : Red .

**Package Outline Dimensions**



**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm ,Unit = mm

**Absolute Maximum Ratings (Ta=25°C)**

Parameter	Symbol	Rating	Units
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	50	mA
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Electrostatic Discharge(HBM)	ESD	2000	V
Power Dissipation	P <sub>d</sub>	120	mW
Peak Forward Current (Duty 1/10 @1KHz)	I <sub>FP</sub>	100	mA
Soldering Temperature	T <sub>sol</sub>	Reflow Soldering : 260 °C for 10 sec. Hand Soldering : 350 °C for 3 sec.	

**Electro-Optical Characteristics (Ta=25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I <sub>V</sub>	360	-----	900	mcd	I <sub>F</sub> =20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	I <sub>F</sub> =20mA
Peak Wavelength	λ <sub>p</sub>	-----	624	-----	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	621	-----	631	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	△λ	-----	20	-----	nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	1.75	-----	2.35	V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	-----	-----	10	μA	V <sub>R</sub> =5V

**Notes:**

- 1.Tolerance of Luminous Intensity ±10%**
- 2.Tolerance of Dominant Wavelength ± 1nm**
- 3.Tolerance of Forward Voltage ±0.1V**

**Bin Range Of Dominant Wavelength**

Group	Bin Code	Min.	Max.	Unit	Condition
F	FF1	621	626	nm	I <sub>F</sub> =20mA
	FF2	626	631		

**Bin Rang Of Luminous Intensity**

Bin	Min	Max	Unit	Condition
T2	360	450	mcd	I <sub>F</sub> =20mA
U1	450	565		
U2	565	715		
V1	715	900		

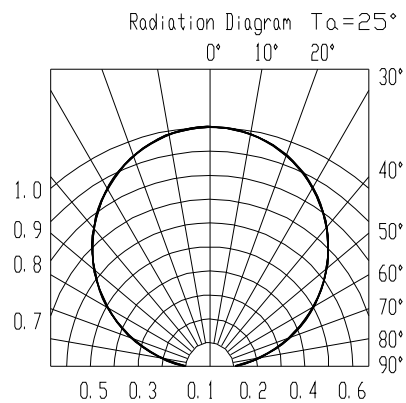
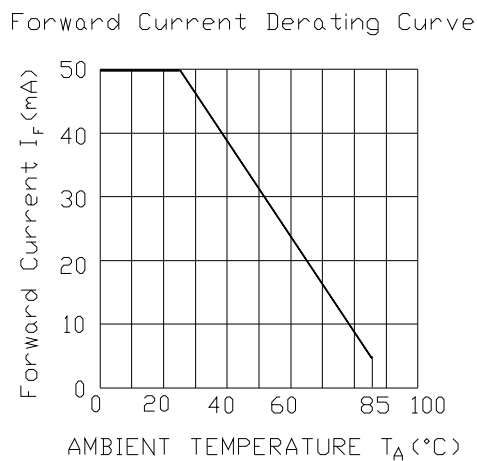
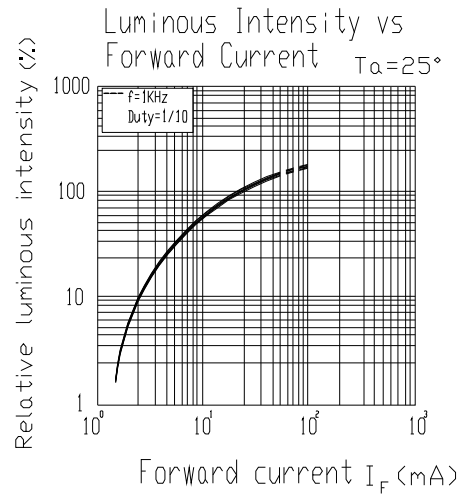
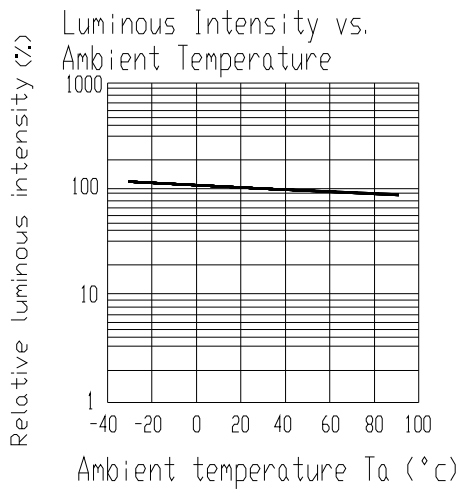
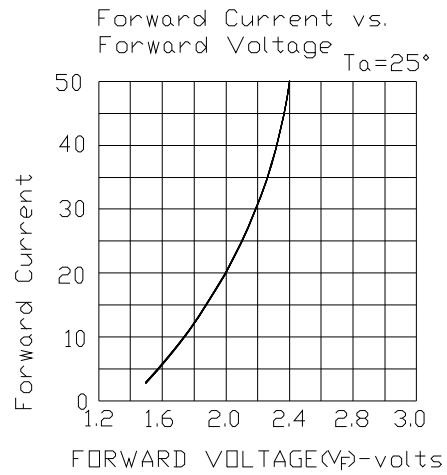
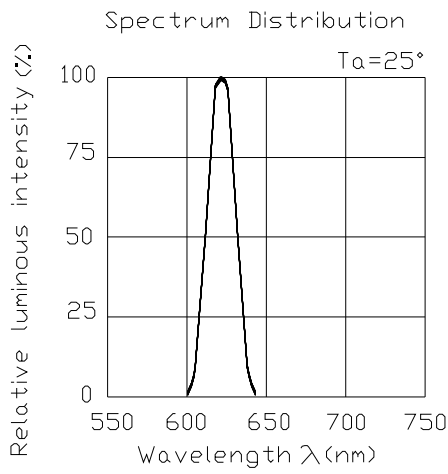
**Bin Rang Of Forward Voltage**

Group	Bin	Min	Max	Unit	Condition
B	0	1.75	1.95	V	I <sub>F</sub> =20mA
	1	1.95	2.15		
	2	2.15	2.35		

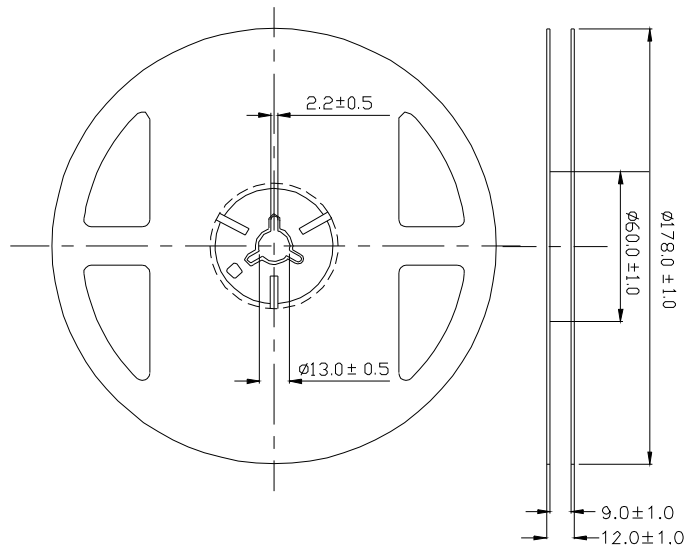
**Notes:**

- 1.Tolerance of Luminous Intensity  $\pm 10\%$
- 2.Tolerance of Dominant Wavelength  $\pm 1\text{nm}$
- 3.Tolerance of Forward Voltage  $\pm 0.1\text{V}$

### Typical Electro-Optical Characteristics Curves

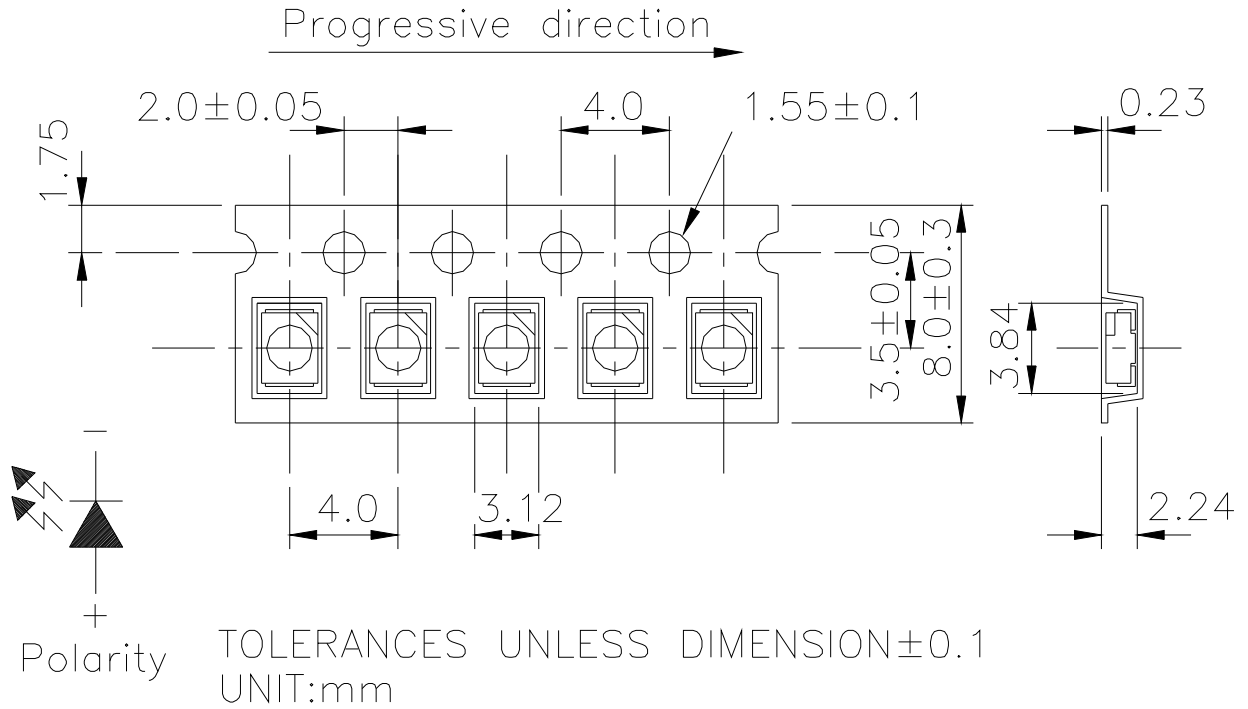


## Reel Dimensions



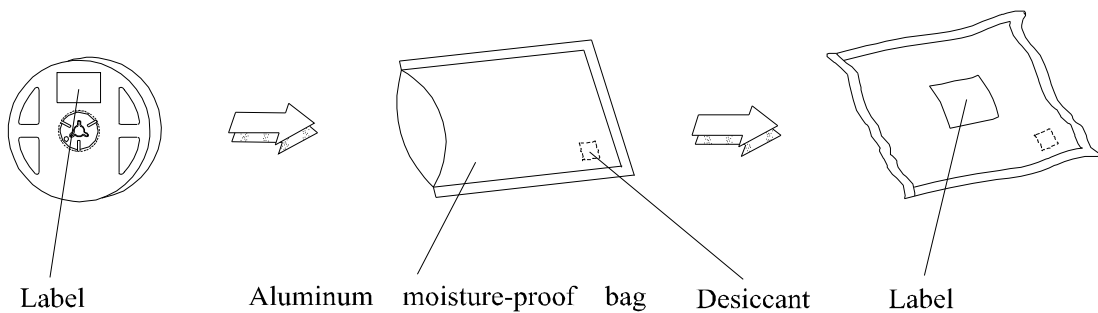
**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm ,Unit = mm

**Carrier Tape Dimensions: Loaded quantity 2000 PCS per reel.**



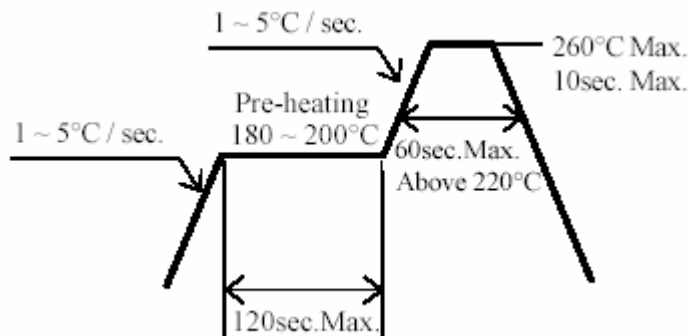
**Note: The tolerances unless mentioned is ±0.1mm Unit = mm**

**Moisture Resistant Packaging**



## Soldering Condition

### 1. Pb-free solder temperature profile



2. Reflow soldering should not be done more than two times.
- 3 When soldering, do not put stress on the LEDs during heating.
- 4 After soldering, do not warp the circuit board.

## Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.