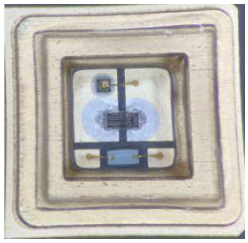
Draft Specification For UV-CSeries

3535



Features

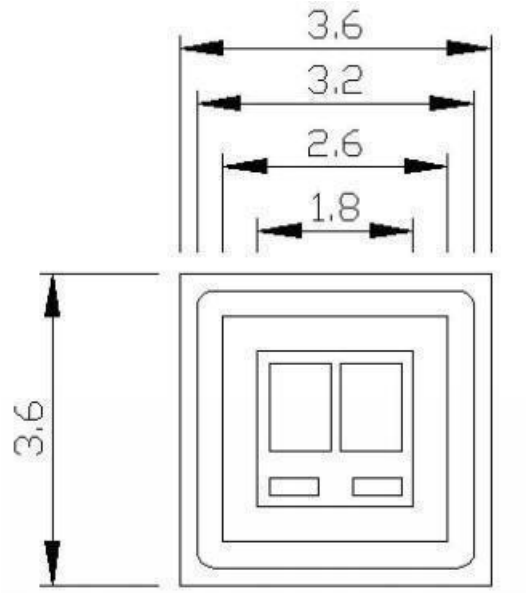
- Deep Ultraviolet LED
- Dimension : 3.6mm×3.6mm x1.62mm
- All Metal Design Cu Substrate/Alreflector
- View Angle :Flat
- Low thermal resistance

Applications

- Disinfection
- Chemical and Biological analysis

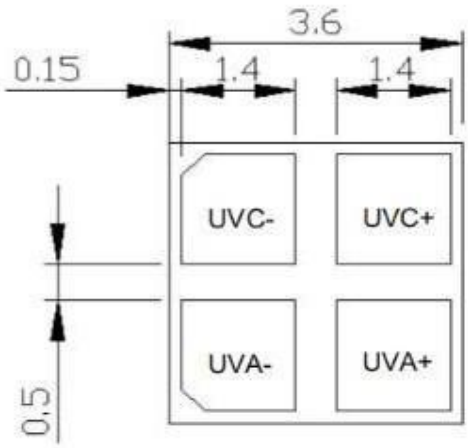


Outline Dimension

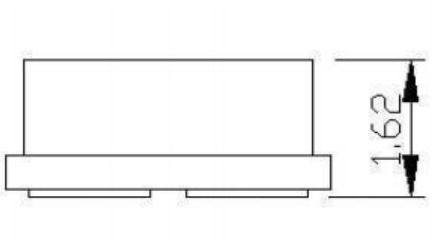


top view

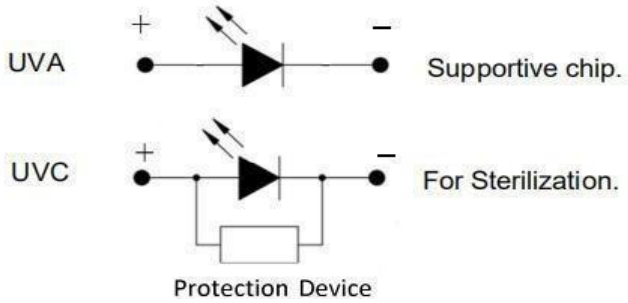
Unit : mm



Bottom view



side view



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is ±0.2mm unless otherwise noted.

UVA For Supportive

Absolute Maximum Ratings

(Ta=25℃)

Parameter	Symbol	Value	Unit
Power Dissipation	P	0.06	W
Forward Current	I_F	20	mA
Maximum Current	I_F	60	mA
Thermal Resistance, Junction-Case	R_{th}, J-C1	15	°C/W
Operating Temperature Range	T_{opr}	- 40°C to + 60°C	
Storage Temperature Range	T_{stg}	- 40°C to + 100°C	
Soldering Condition	T_{sol}	230°C For 5 Seconds	

Note: 1. The thermal resistance value is measured with MCPCB (Star).

Initial Electrical/Optical Characteristics

(Ta=25℃ IF=20mA)

Parameter	Symbol	Min	Typ	Max	Unit
Peak wavelength	λ_p	395 (white)	—	405(white)	nm
Radiant Flux	Φ_e	20	40	—	mW
Radiant Irradiance	E_e	—	20	—	mW/cm^2
Forward Voltage	V_F	—	3	3.4	V
Spectra half-width	$\Delta\lambda$	—	15	—	nm
LED Junction Temperature	TJ	—	105	115	°C

Note

1. Forward voltage measurement allowance is ± 0.2V.
2. Radiant flux measurement allowance is ± 10%.
3. Irradiance tested at a distance 10mm from Al reflector.
4. Wavelength measurement allowance is ± 3nm.

UVC For Sterilization

Absolute Maximum Ratings

(Ta=25℃)

Parameter	Symbol	Value	Unit
Power Dissipation	P	0.5	W
Forward Current	I_F	60	mA
Maximum Current	I_F	80	mA
Thermal Resistance, Junction-Case	R_{th}, J-C1	15	°C/W
Operating Temperature Range	T_{opr}	- 40°C to + 60°C	
Storage Temperature Range	T_{stg}	- 40°C to + 100°C	
Soldering Condition	T_{sol}	230°C For 5 Seconds	

Note: 1. The thermal resistance value is measured with MCPCB (Star).

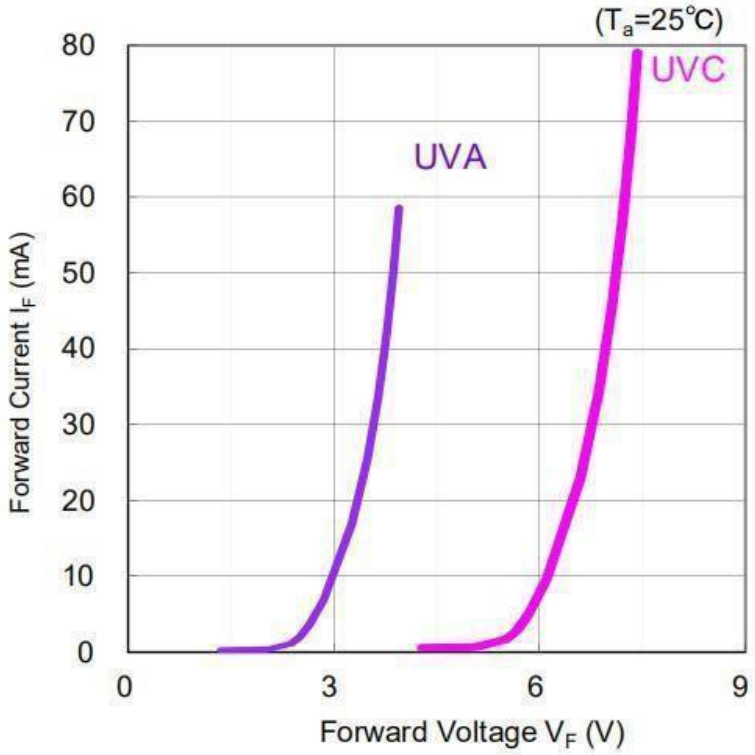
Parameter	Symbol	Min	Typ	Max	Unit
Peak wavelength	λ_p	265	275	285	nm
Radiant Flux	Φ_e	6	12	-	mW
Radiant Irradiance	E_e	-	70	-	μW/cm^2
Forward Voltage	V_F	-	6	7	V
Spectra half-width	$\Delta\lambda$	-	15	-	nm
LED Junction Temperature	TJ	-	60	80	°C

Note

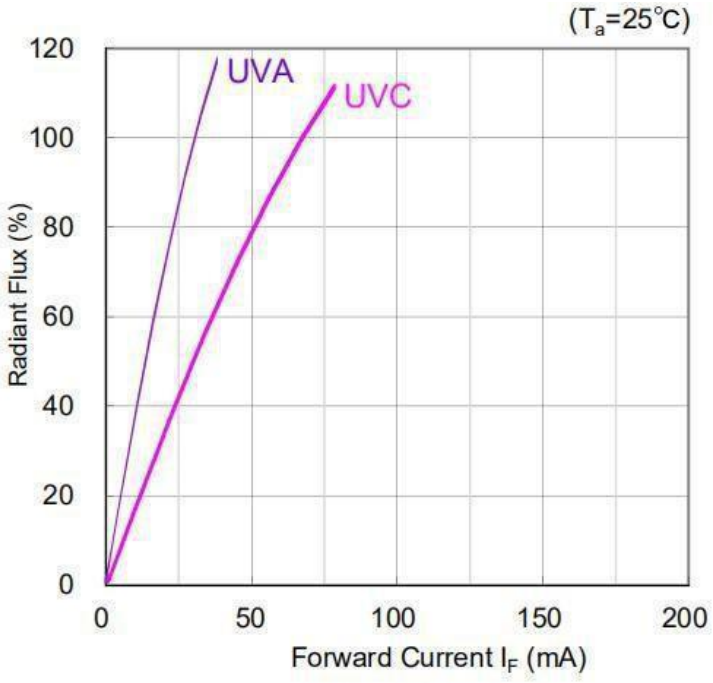
1. Forward voltage measurement allowance is ± 0.2V.
2. Radiant flux measurement allowance is ± 10%.
3. Irradiance tested at a distance 10mm from Al reflector.
4. Wavelength measurement allowance is ± 3nm.

Characteristic Diagram

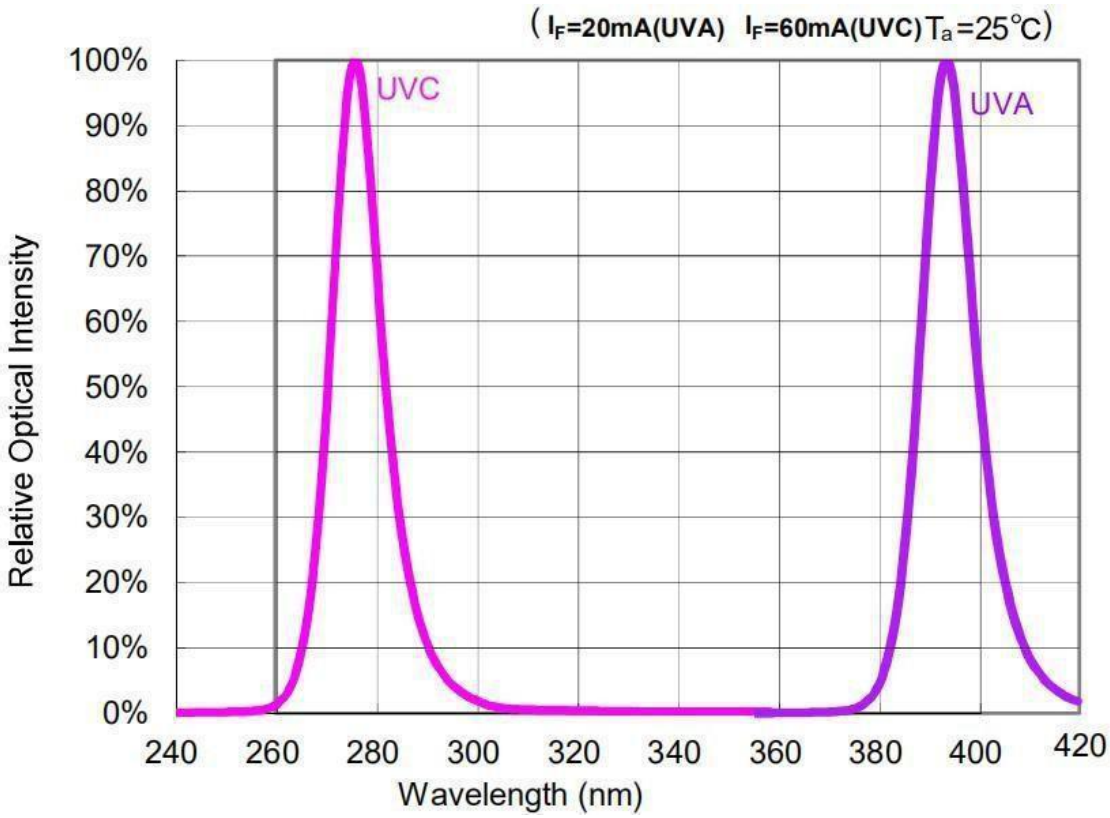
- Forward Current vs. Forward Voltage



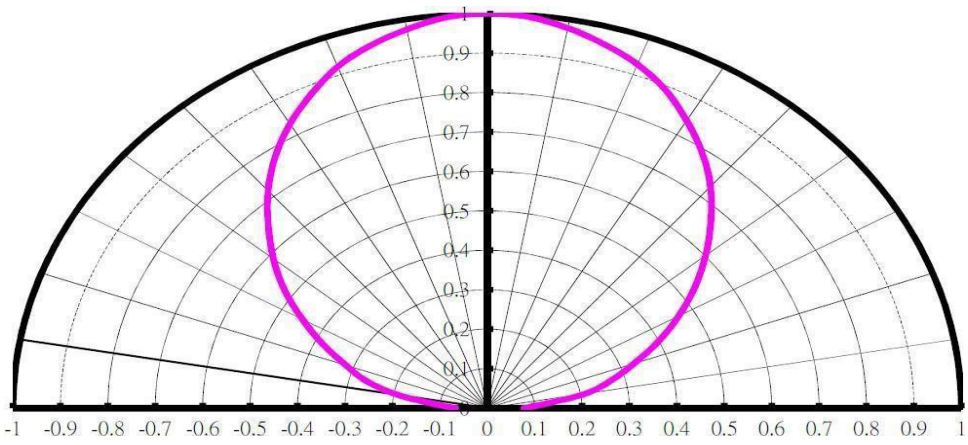
- Relative Intensity vs. Forward Current



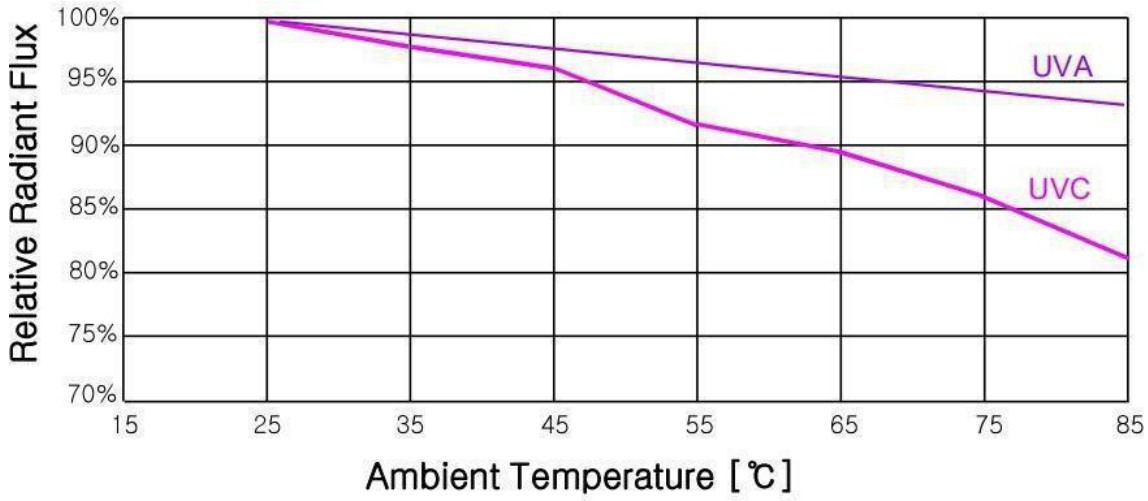
- Spectral Power Distribution



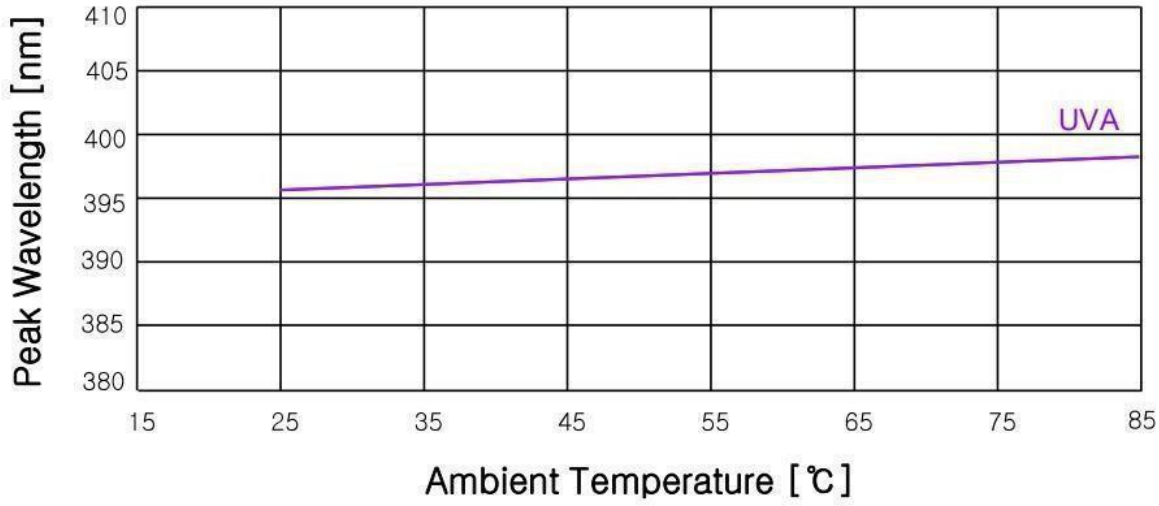
- Typical Radiation Pattern

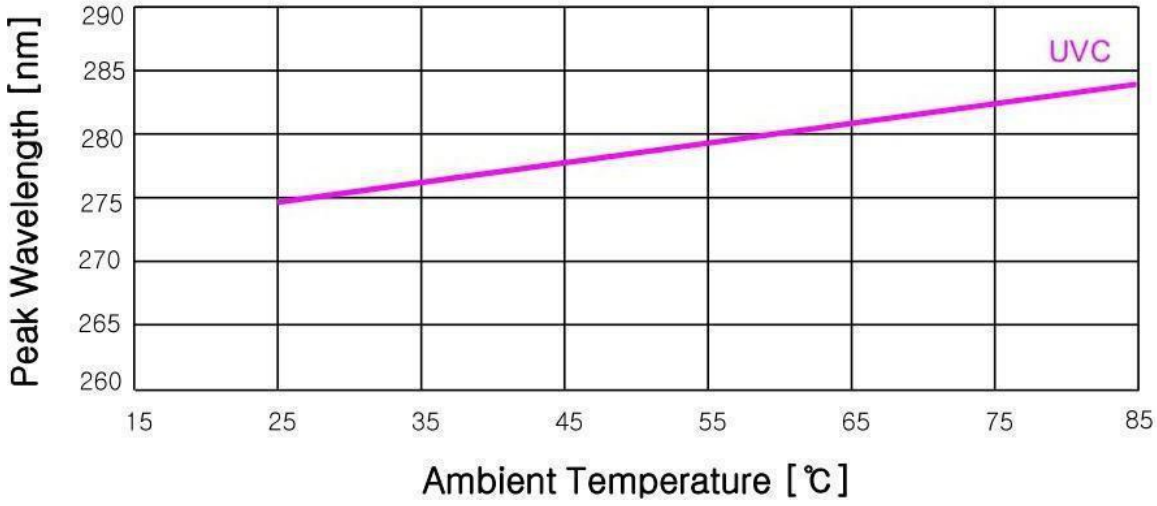


- **Ambient Temperature vs. Relative Radiant Flux, I_F=20mA(UVA) IF=60mA(UVC)**



- **Ambient Temperature vs. Peak Wavelength , I_F=20mA(UVA) IF=60mA(UVC)**





Shipping Package Style

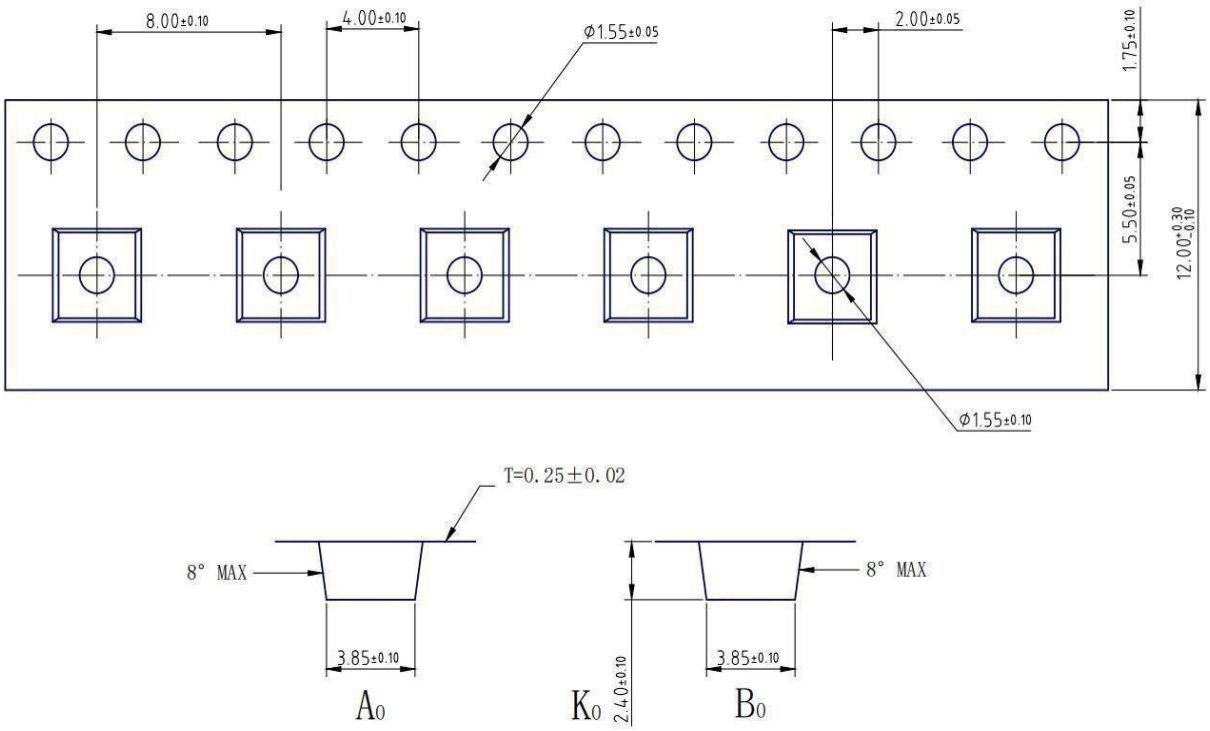
Lens Type

Tapping Dimension Packaging Specification

FLAT Lens Type :

- Moisture proof bag.
- 1 Reel/bag.
- Q'ty: 4000 (MAX)/Reel.

Unit : mm





Tapping Dimension Packaging Specification

Label Formation



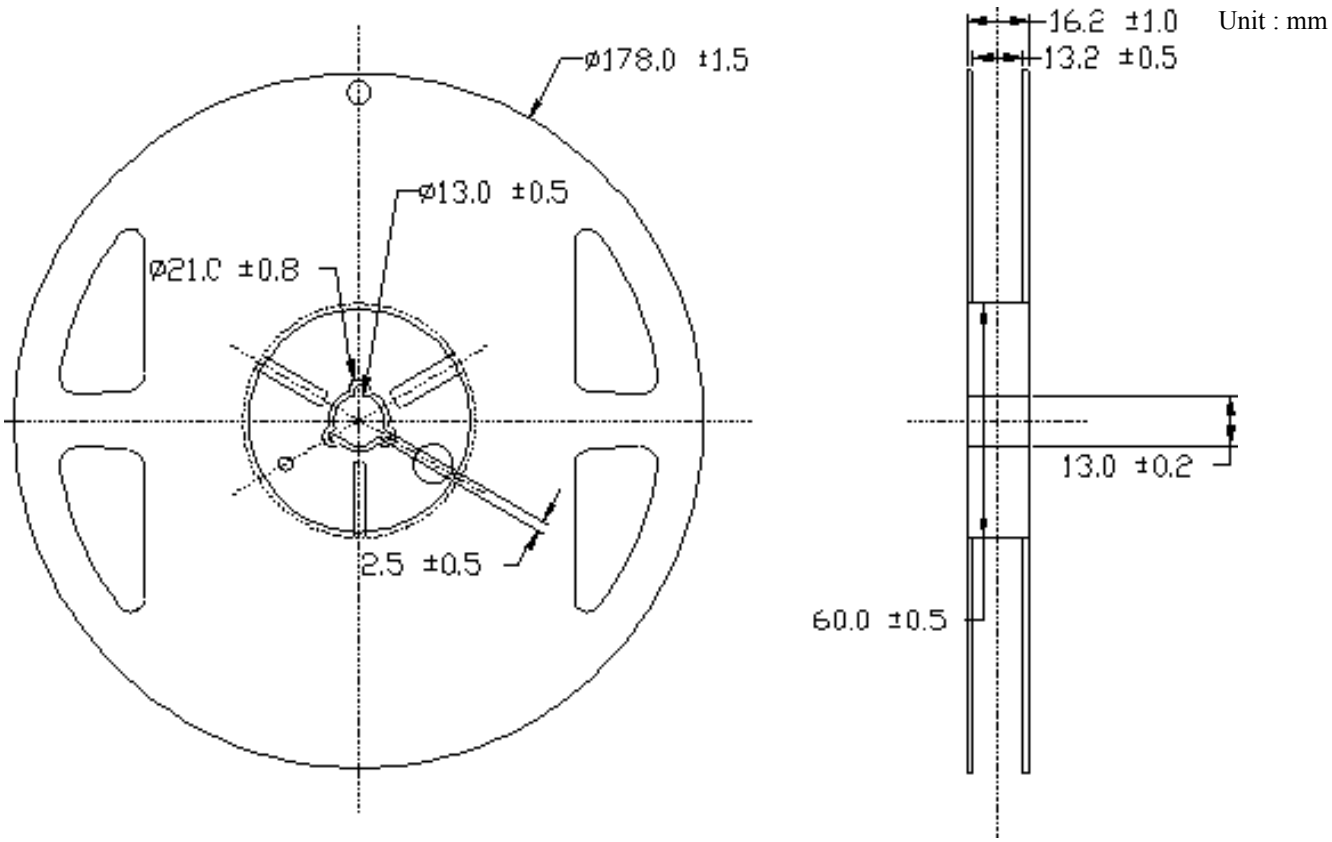
75mm*8mm

Package

Box Type	Dimension (mm)	Reel/Box	120°Lens Type(Pcs)
Small Box(S)	230x85x265	5 Reel/Box	20000
Middle Box(M)	470x265x270	30 Reel/Box	120000
Large Box(L)	470x435x270	50 Reel/Box	200000

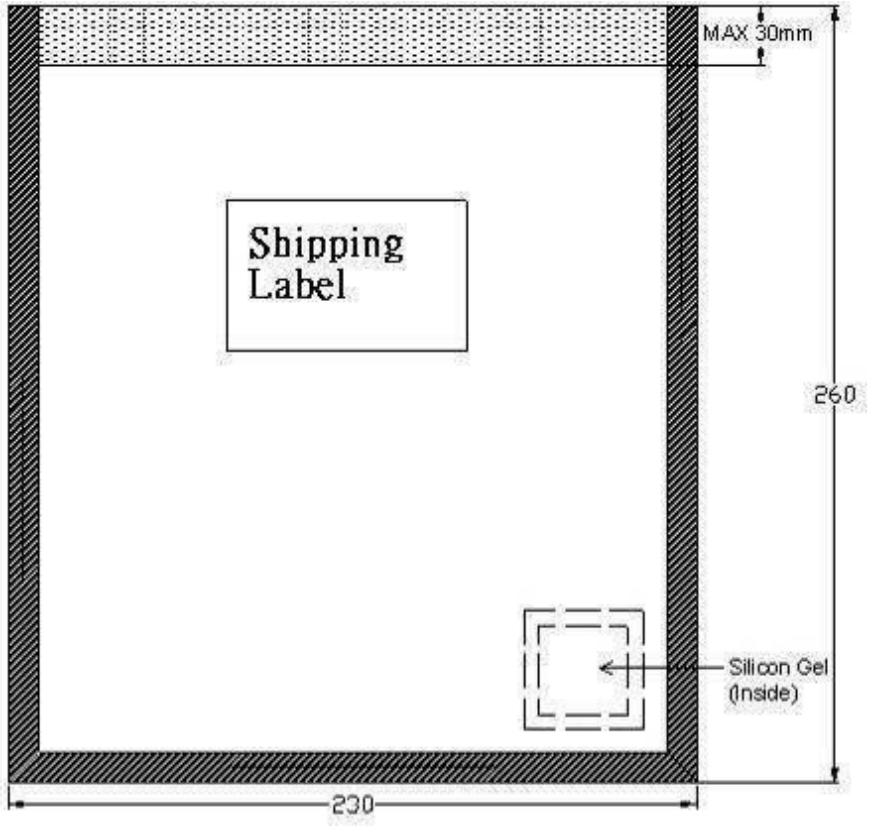
Reel Packaging :

Reel Part :



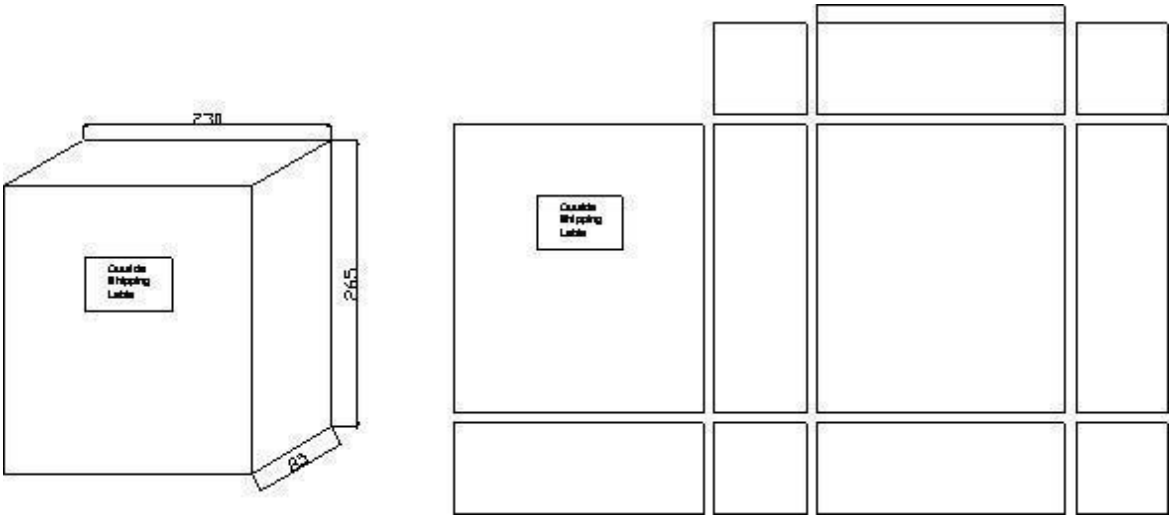
Anti Statistic Bag :

Unit : mm



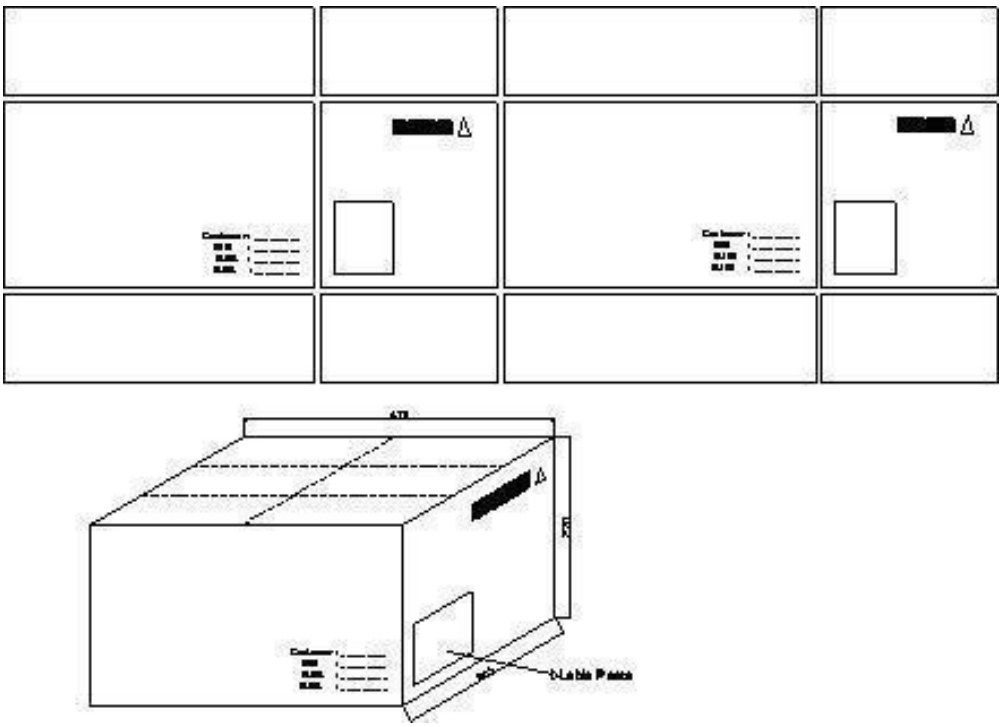
Small Box

Unit :mm



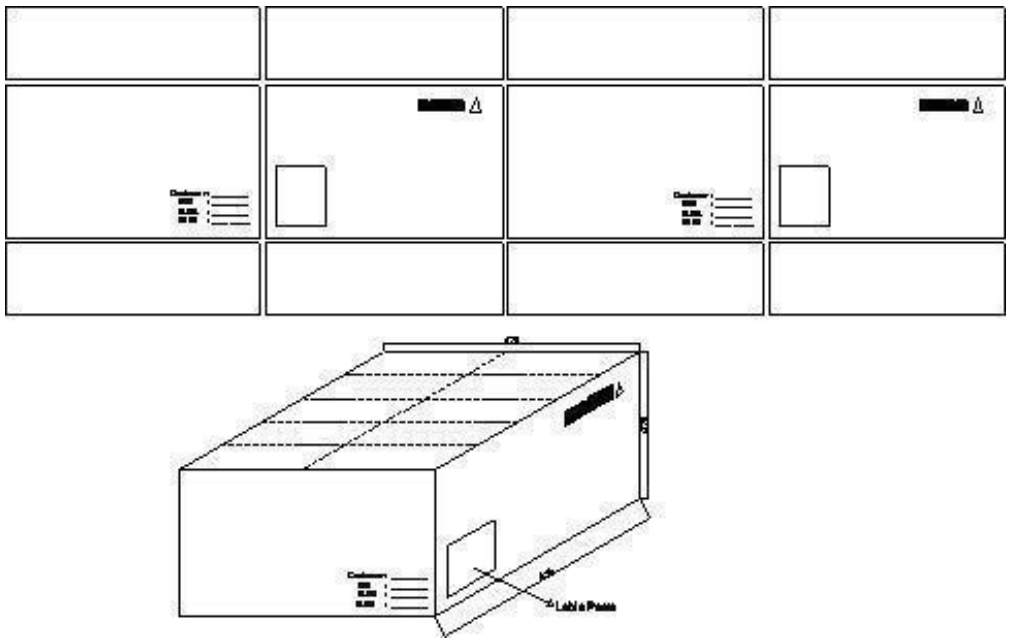
Middle Box

Unit :mm



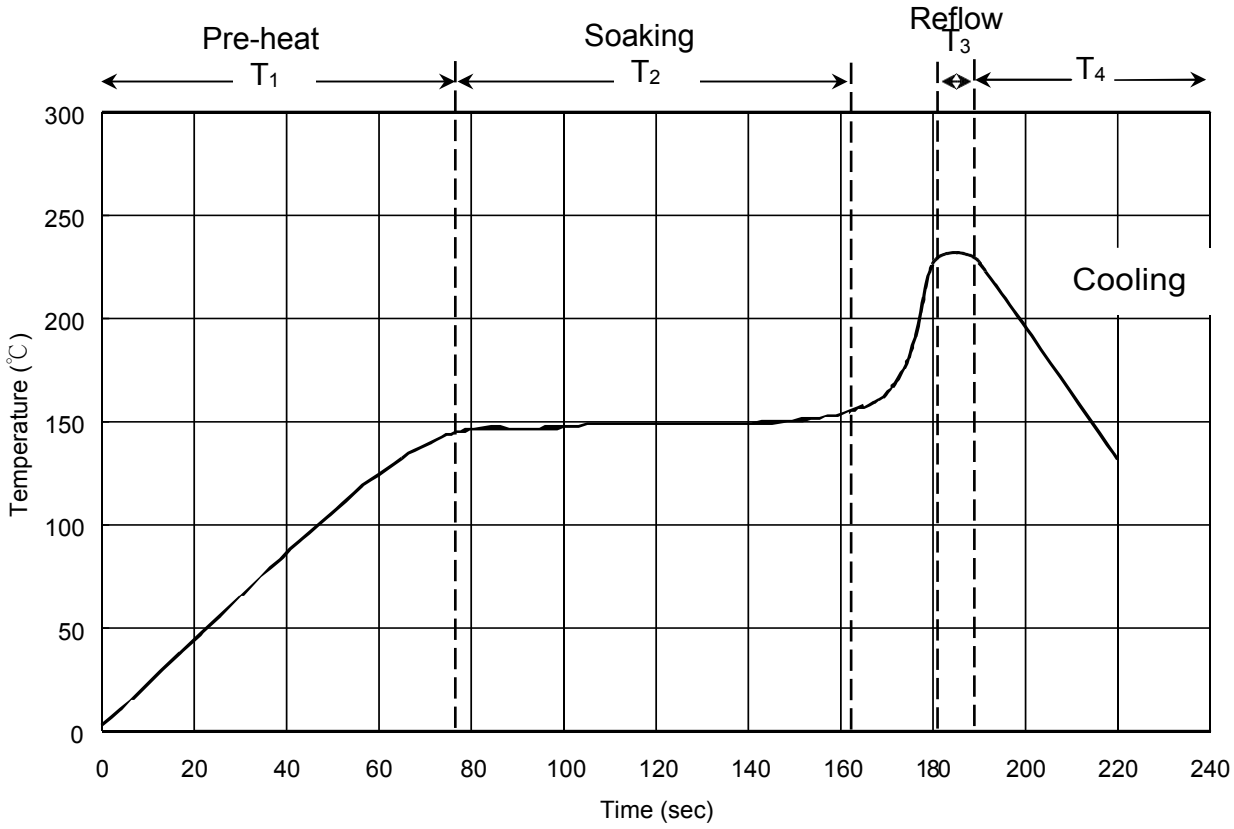
Large Box

Unit : mm



Recommended Solder Profile

Soldering Recommended soldering conditions:



T_1	Ramp up rate	1.0 ~ 3.0 ℃/sec
	Pre-heat time	50 ~ 80 sec
T_2	Soaking temperature	155 ~ 185 ℃
	Dwell time during soaking	60 ~ 120 sec
T_3	Reflow temperature	220 ~ 230 ℃
	Reflow time	Max 10 sec
	Ramp up rate during reflow	1.2 ~ 2.3 ℃/sec
T_4	Cooling	1.0 ~ 6.0 ℃/sec

Note: Suggest using Sn96Ag3Cu0.5 lead free solder.

Cleaning

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED if necessary.