Draft Specification For UV-C Series

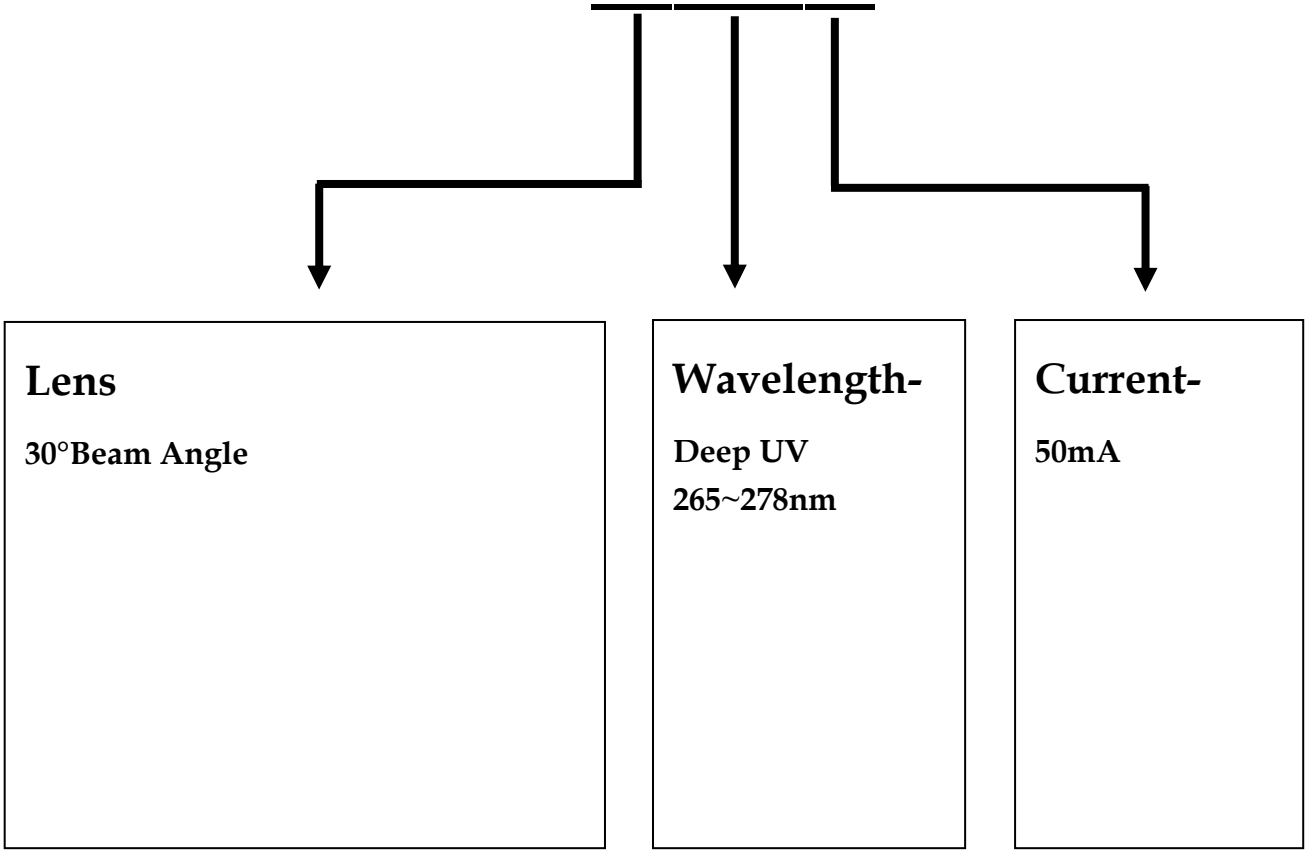
BRT-B35DD7C1CSC

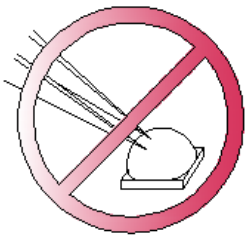
Features	Applications
■ Deep Ultraviolet LED ■ Dimension : 3.45mm(L)×3.45mm(W) ■ All Metal Design Cu Substrate ■ View Angle 30° ■ Low thermal resistance	■ Disinfection ■ Chemical and Biological analysis

RoHS Compliant

General Information

BRT - B35DD7C1CSC



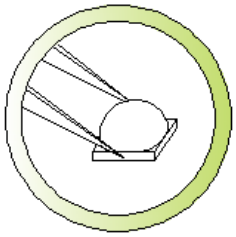


Do not poke the Led Lens with sharp object

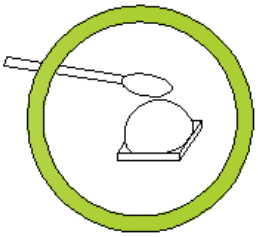
Do not stack assembled PCB

Do not hold the Led with hand

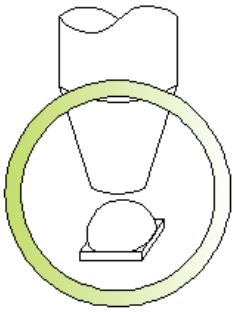
Do not press or push the Led Lens



Hold the Led only by the substrate



Clean the LED surface with cotton bud



Use pick and place nozzle per recommendation in data sheet

Part Number Matrix

Type / Wavelength	30°Lens	30°Lens & Star
DUV 265~278nm	BRT-B35DD7C1CSC	BRT-B35XD7C1CSC

Absolute Maximum Ratings

(Tj=25℃)

Parameter	Symbol	Value	Unit
Power Dissipation	P	0.45	W
Forward Current	I_F	50	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}	260°C For 5 Seconds	

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

Initial Electrical/Optical Characteristics

(Tj=25℃)

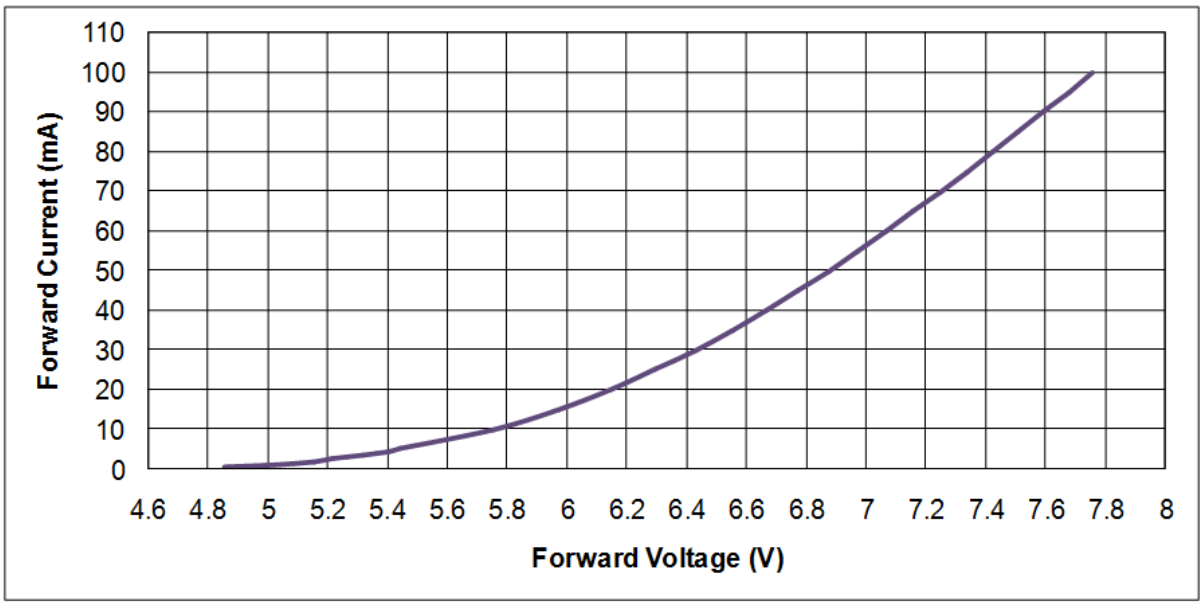
Parameter	Symbol	Min	Typ	Max	Test Condition	Unit
Peak wavelength	λ_p	265	-	278	I_F = 50mA	nm
Radiant Flux	Φ_e	4	7.5	-		mW
Radiant Irradiance	E_e	-	8	-		mW/cm^2
Forward Voltage	V_F	-	7	9		V
Spectra half-width	$\Delta\lambda$	-	15	-		nm

Note

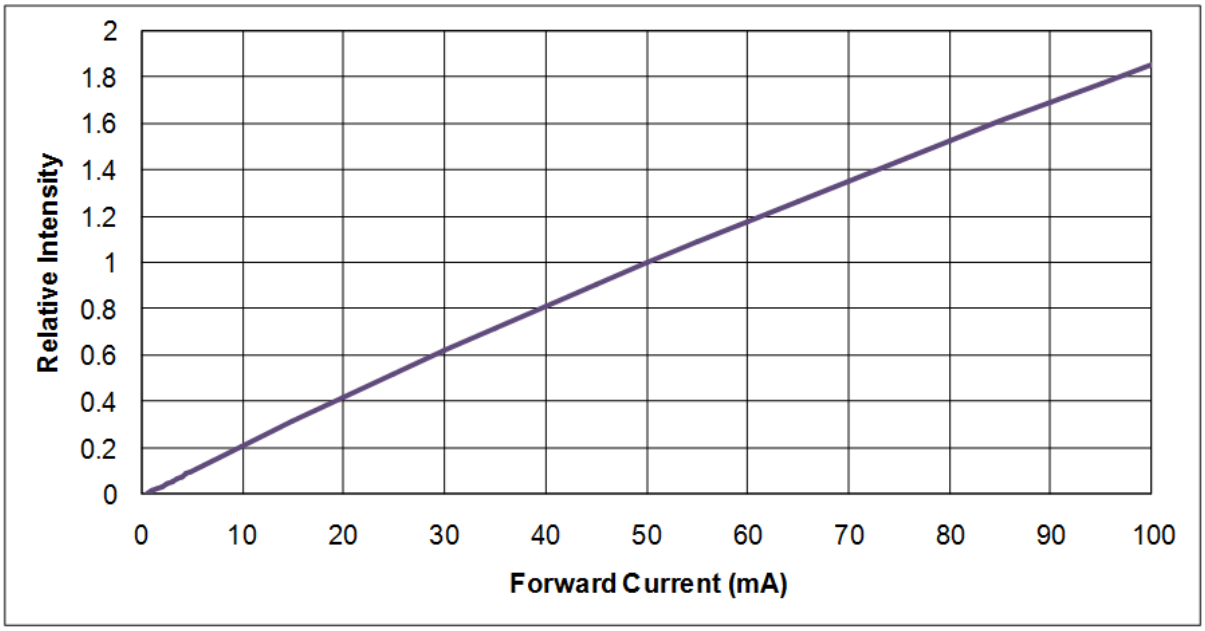
1. Forward voltage measurement allowance is ± 0.2V.
2. Radiant flux measurement allowance is ± 10%.
3. Irradiance tested at a distance 10mm from lens top.
4. Wavelength measurement allowance is ± 3nm.

Characteristic Diagram

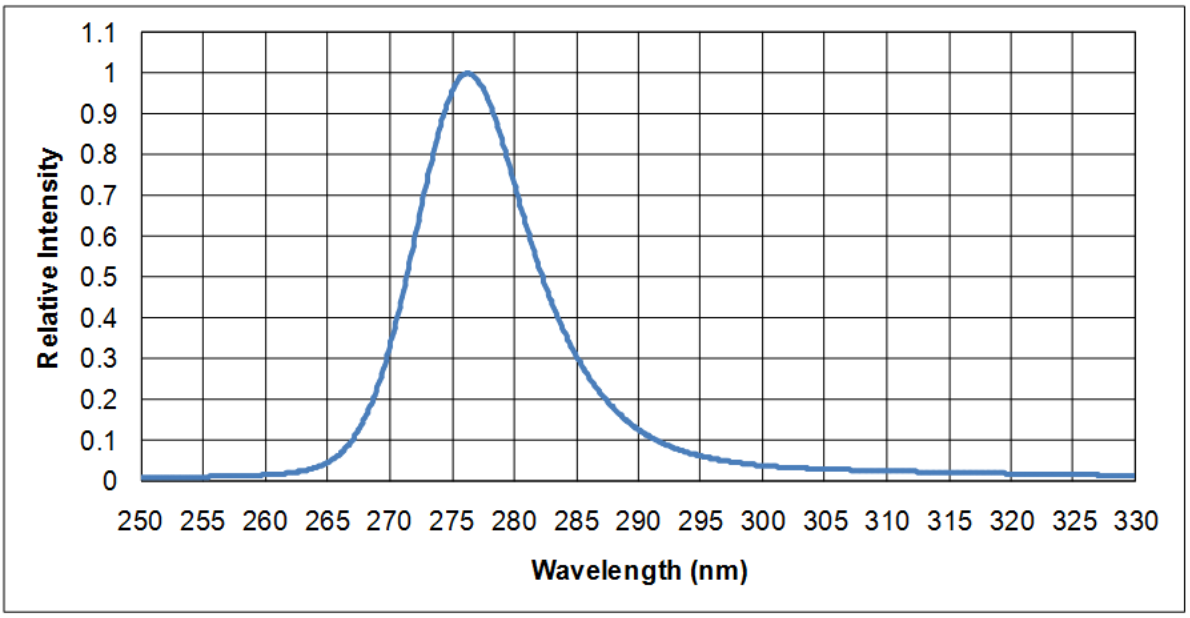
- **Forward Current vs. Forward Voltage**



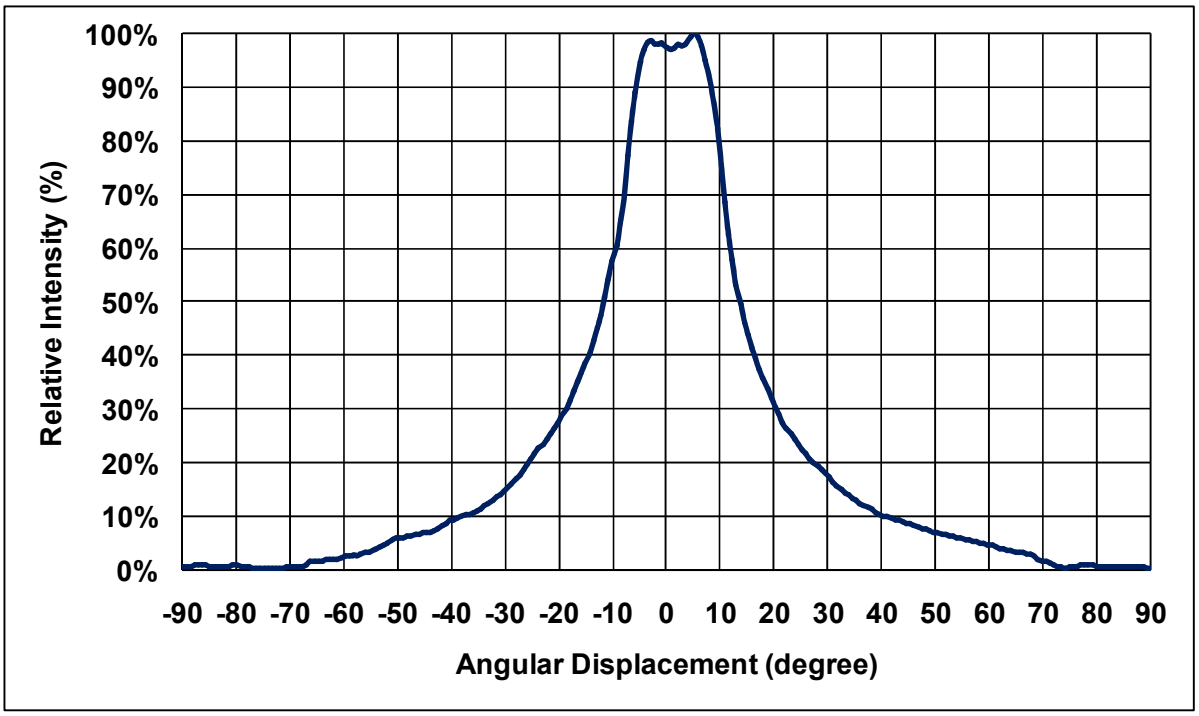
- **Relative Intensity vs. Forward Current**



- **Spectral Power Distribution**



- **Typical Radiation Pattern**



- **Bin Code List for Reference**

(Tj=25℃)

Item	Bin code	Symbol	Condition	Min.	Max.	Unit
Forward Voltage[1]	E0	V_F	I_F =50 [mA]	**5**	**5.5**	**V**
	E5			**5.5**	**6**	
	F0			**6**	**6.5**	
	F5			**6.5**	**7**	
	G0			**7**	**7.5**	
	G5			**7.5**	**8**	
	H0			**8**	**8.5**	
	H5			**8.5**	**9**	
Radiant Flux[2]	A40	Φ_e	I_F =50 [mA]	**4**	**6**	**mW**
	A60			**6**	**10**	

Bin Rank : V_F-Φ_e

Note

1. Forward voltage measurement allowance is ± 0.2V.
2. Radiant flux measurement allowance is ± 10%.

• Outline Dimension

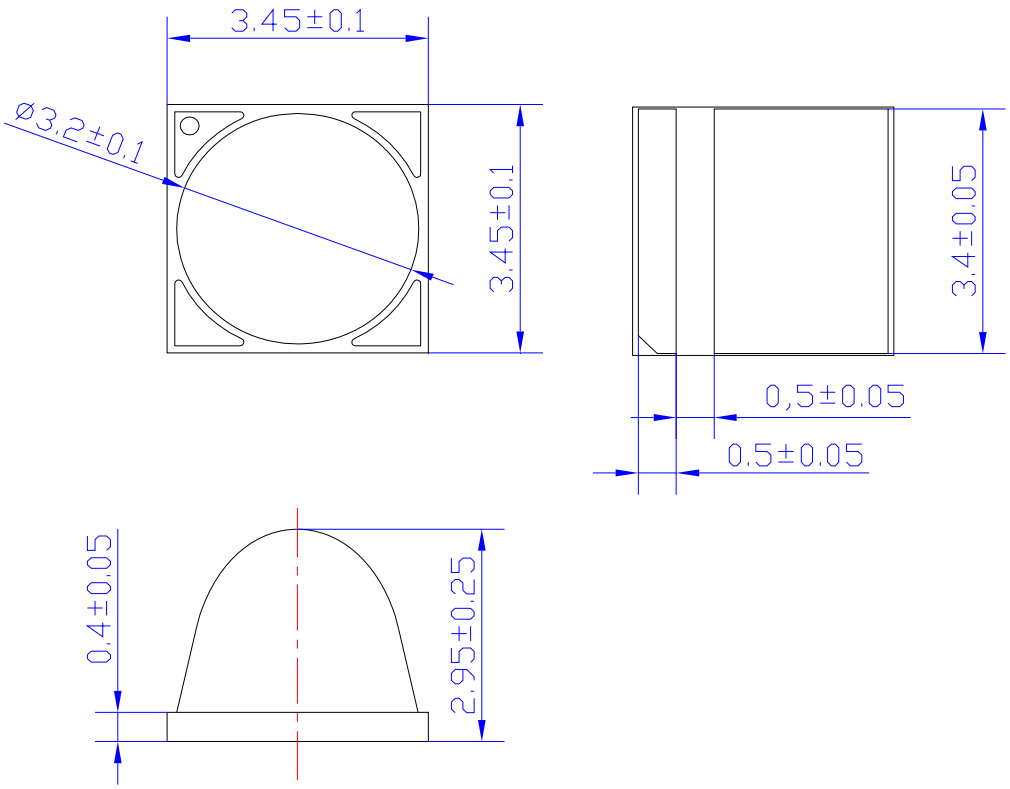
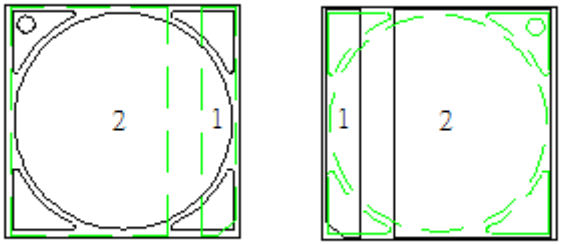


Fig. Package Outline Drawing.

● Pad Configuration



PAD	Function
1	Cathode
2	Anode、 Thermal

TOP **BOTTOM**

Fig. Pad configuration.

Note: Please don't put conductive material on the top surface of LEDs.

Recommended Solder Pattern

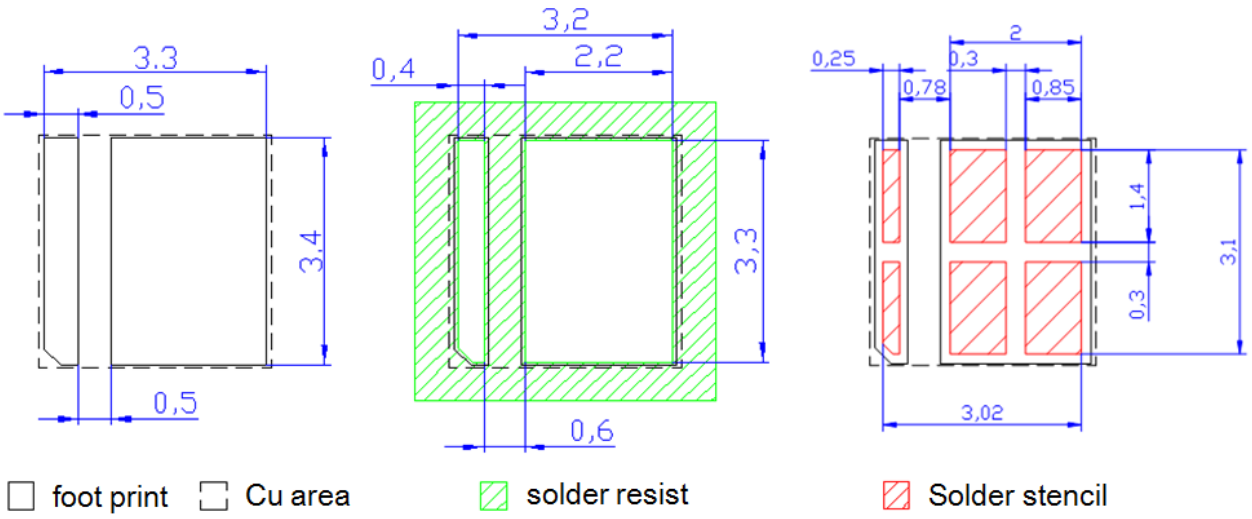


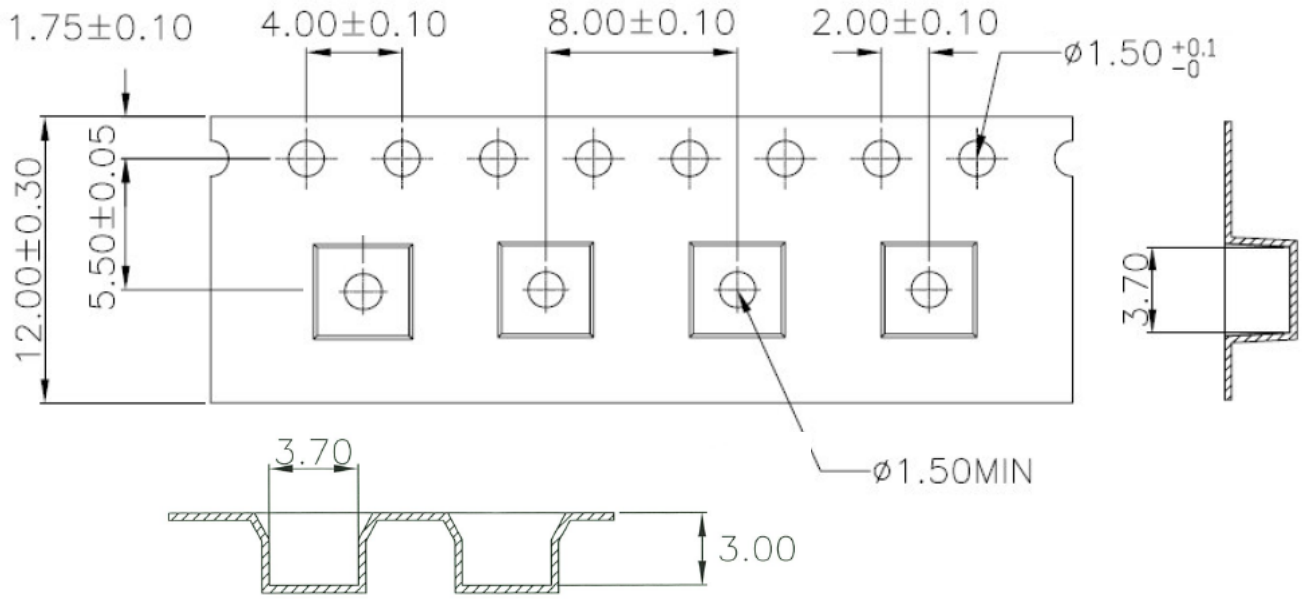
Fig. Solder Pad Layout.

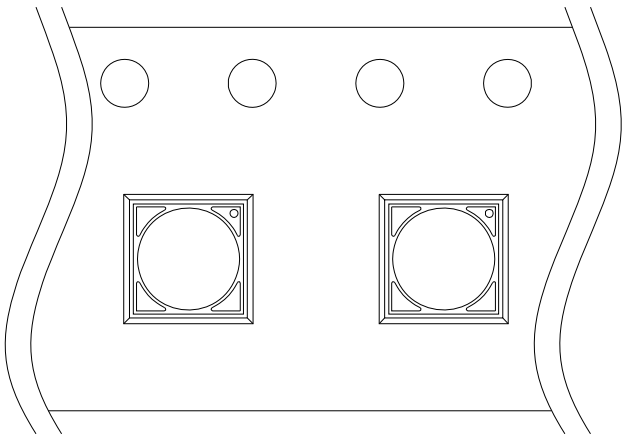
Shipping Package Style

Tapping Dimension Packaging Specification

- Moisture proof bag.
- 1 Reel/bag.
- Q'ty: 600(MAX)/Reel

Unit : mm





Label Formation

P/N: XXXXXXXXXXXXXX	BIN Rank : XXXXXXXXXX
LOT: XXXXXXXXXXXXXX	Q'ty : XXXX PCS XXX

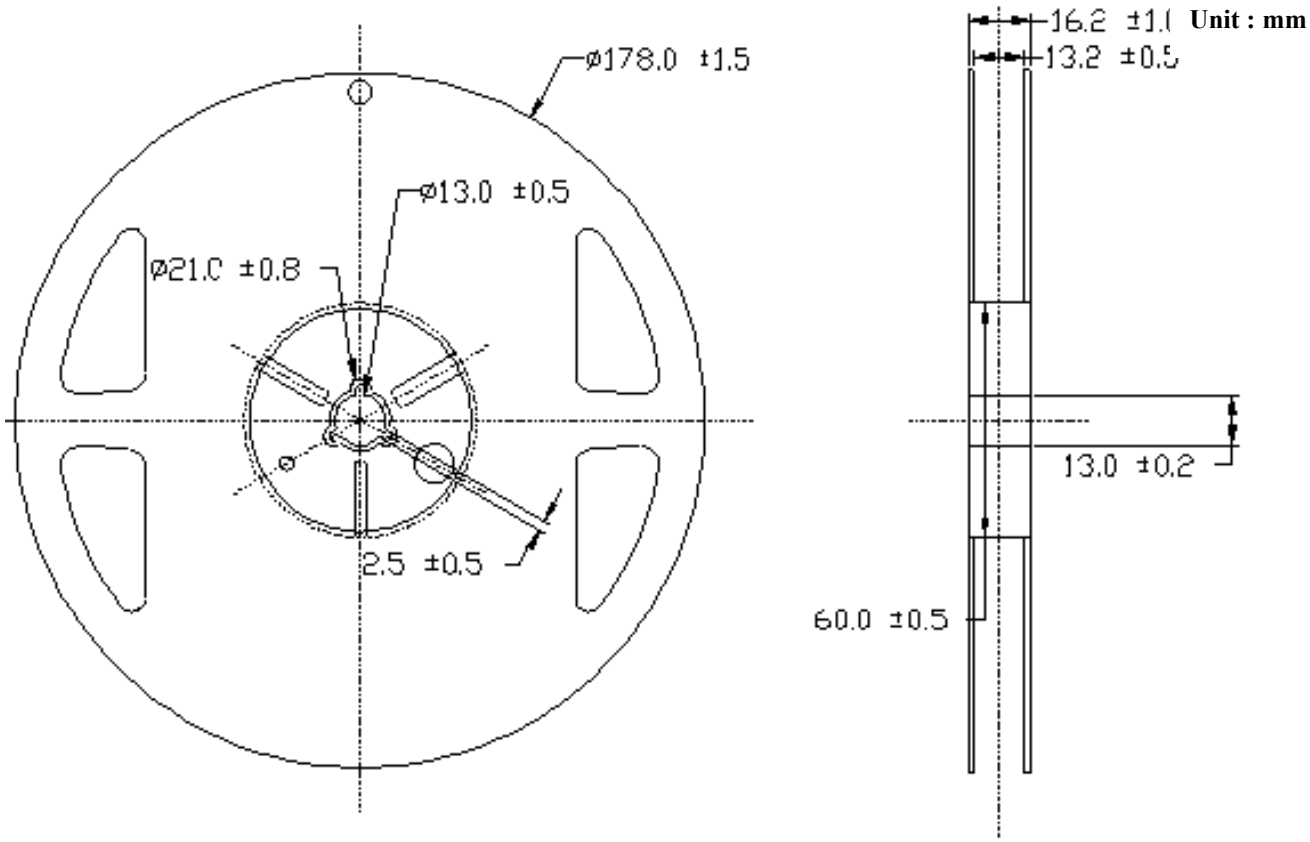
75mm*8mm

Package

Box Type	Dimension (mm)	Reel/Box	30°Lens Type(Pcs)
Small Box(S)	230x85x265	5 Reel/Box	3000
Middle Box(M)	470x265x270	30 Reel/Box	18000
Large Box(L)	470x435x270	50 Reel/Box	30000

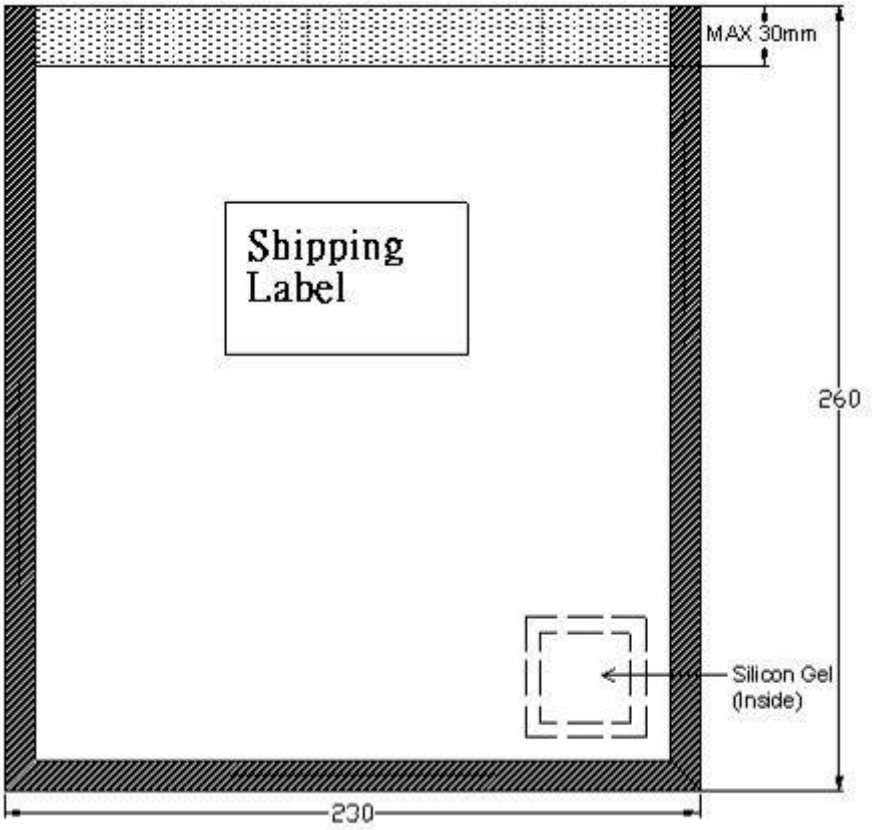
Reel Packaging :

Reel Part :



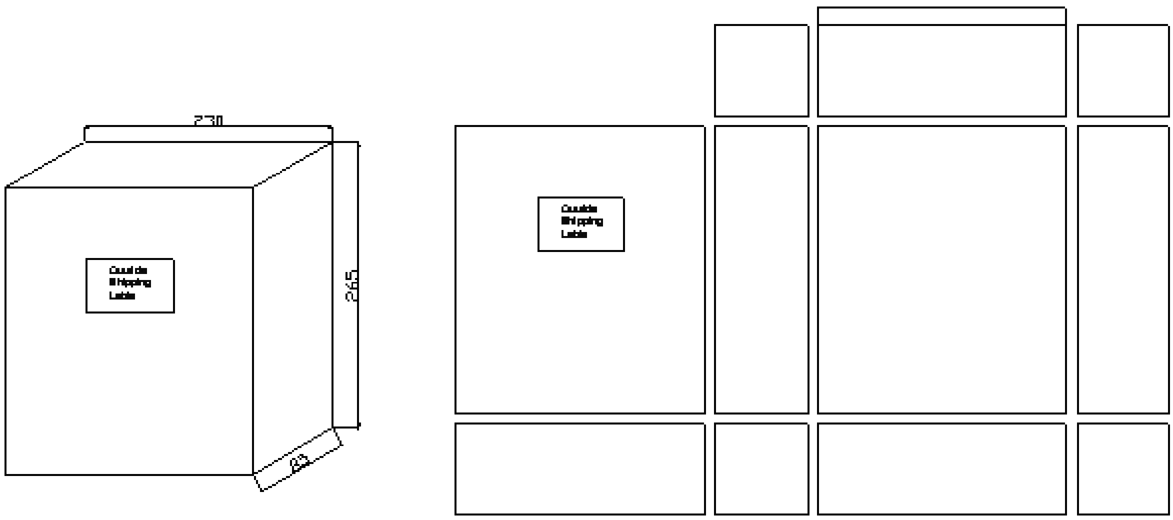
Anti Statistic Bag :

Unit : mm



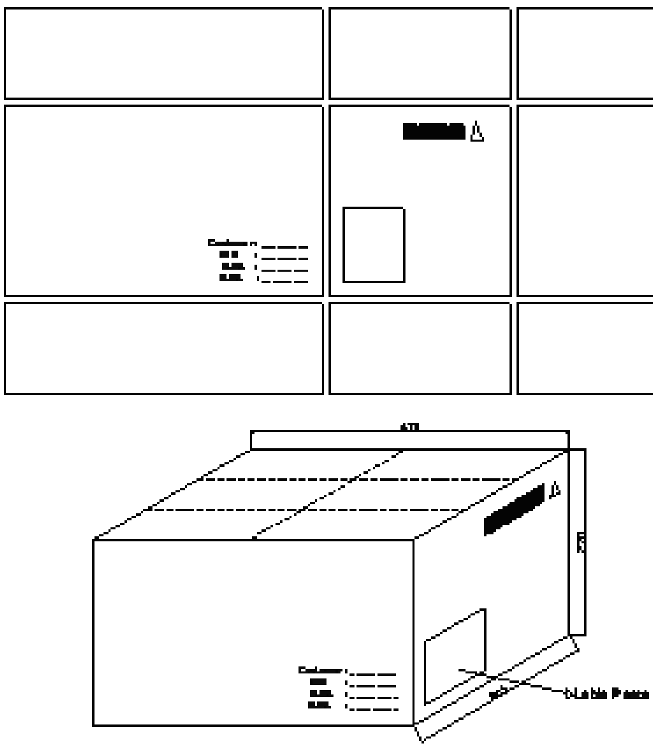
Small Box

Unit : mm



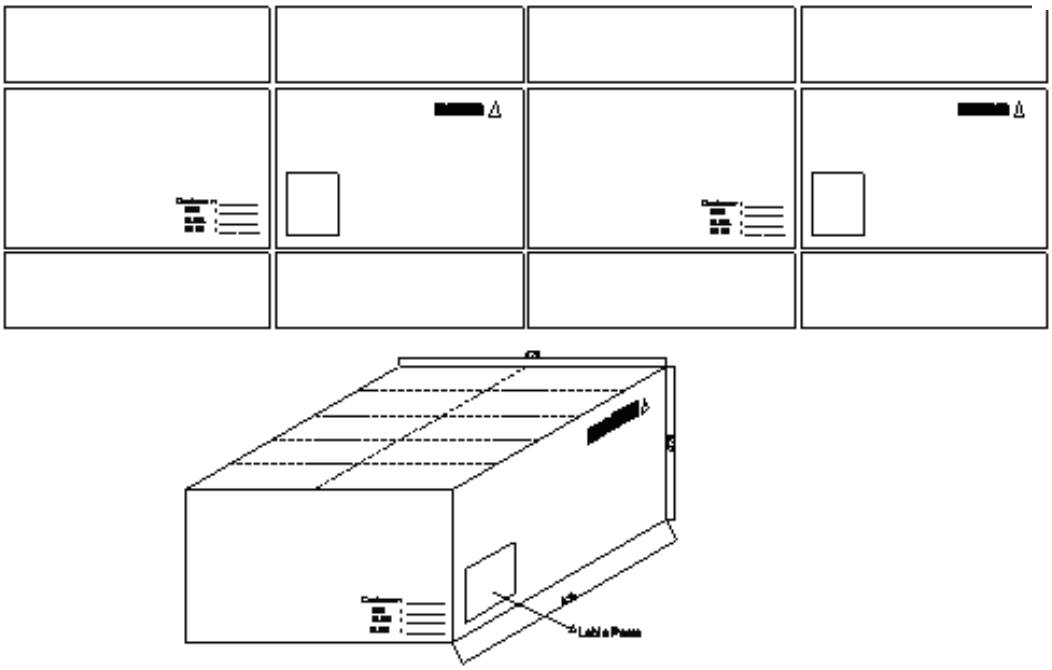
Middle Box

Unit : mm



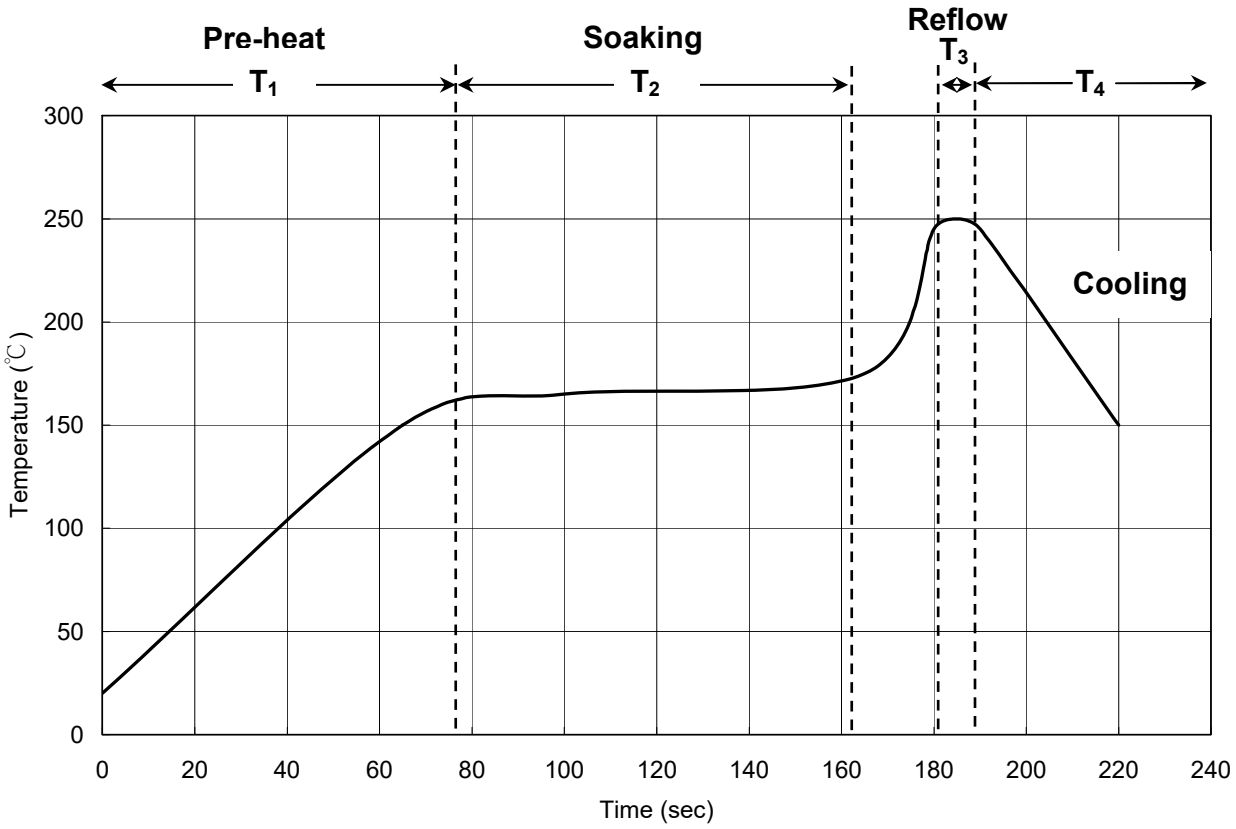
Large Box

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	240 ~ 250 ℃
	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.

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