

承認書

SPECIFICATION FOR APPROVAL

客 戶

Customer

客 戶 品 號

Customer Part No.

产 品 品 號

HC-S1005AAW65TP-F1

Brightek Part No.

規 格

0402 白光 LED

Specification

製 錶 人

王清

Prepared By

審 核

李东平

Checked by

客 戶 回 簽

Customer Confirmation

送样日期:

Deliver date:

說明：一、謹致執事者：茲提供敝公司產品之有關詳細規格及圖面資料，敬請給予辦理測試認定手續。同時敬請送返一份附有貴公司簽認之測試認定後之樣品認定書。

We are sending you our specification and drawings for your approval. Please return to us one copy "For Approval" with your approved signatures.

二、客戶意見欄 Customer'S Proposal

☐ Approve 承認 (請於認可欄中簽名)

☐ Disagree 不同意

Reason 原因:

广东光宇集团

广东光宇实业有限公司

工厂地址：东莞市寮步镇松湖智谷 A2 栋 3 楼

弘呈光电（香 港）有限公司

Hong Cheng Photoelectric (HK) Limited

东莞市弘呈光电有限公司

DongGuan Hong cheng Optoelectronics Co.,Ltd.

工厂地址：广东省东莞市樟木头镇莞樟路樟木头段 15 号万辉花园 1 号二楼

ADD:Room 2108,No.1 building, Wanhui Garden, East Guanzhang Road, Zhangmutou, Dongguan, Guangdong, China

TEL: 0769-87797616 87182291 Fax: 0769-82337396 www.hc-led168.com

业务联系人：李顺阳 13925714318（微信同号）销售总监

版本/版次	修改日期	修改内容
A01		

Features

1.0mm × 0.5mm SMT LED, 0.4mm thickness

Low power consumption

Wide view angle

Package: 4000pcs/reel

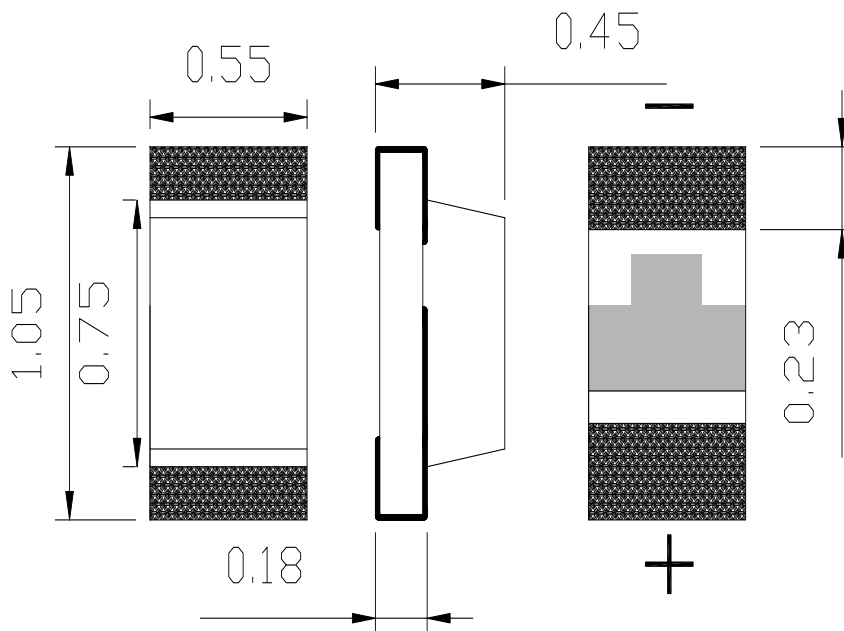
RoHS Compliant

Applications

Ideal for back light and indicator

Various colors and lens types available

Package outlines



Part No.	Emitted color	Dice	Lens color
HC-S1005AAW65TP-F1	White	InGaN/GaN	Yellow

Notes:

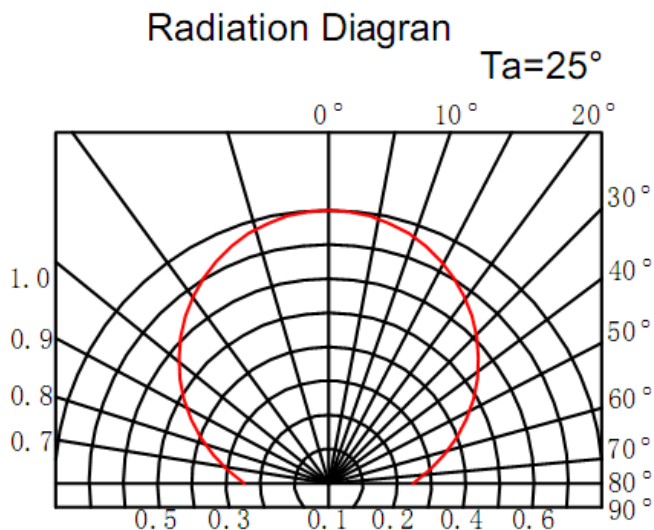
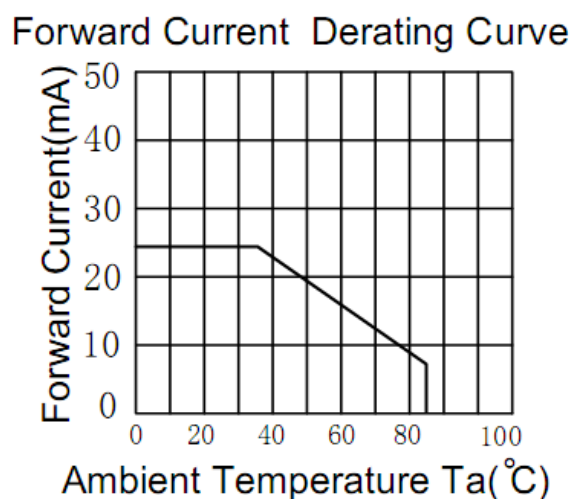
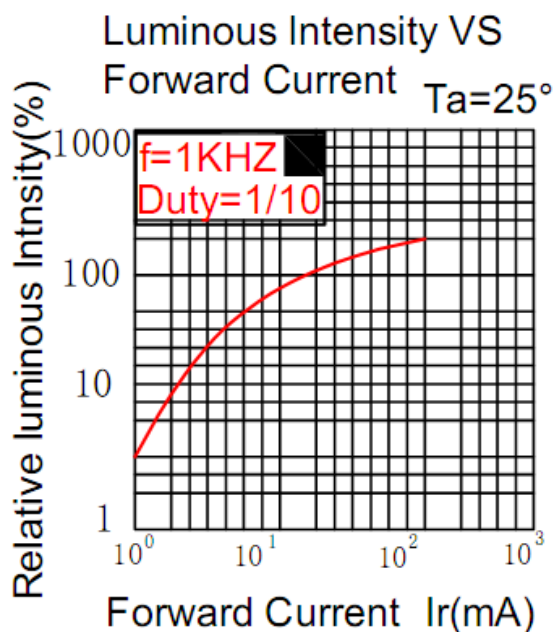
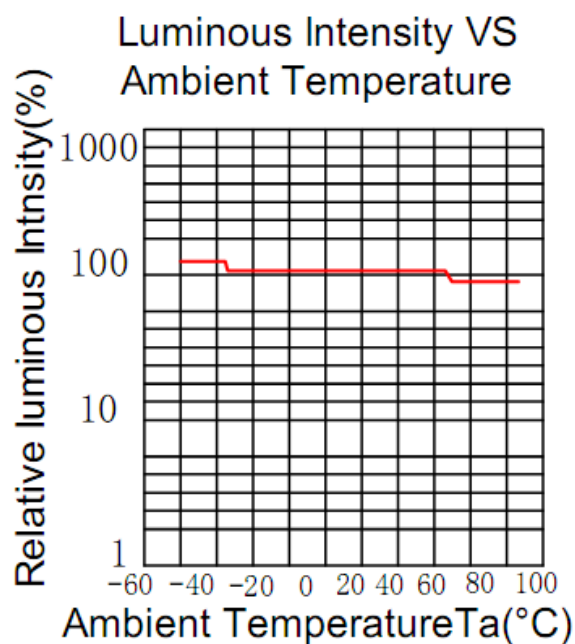
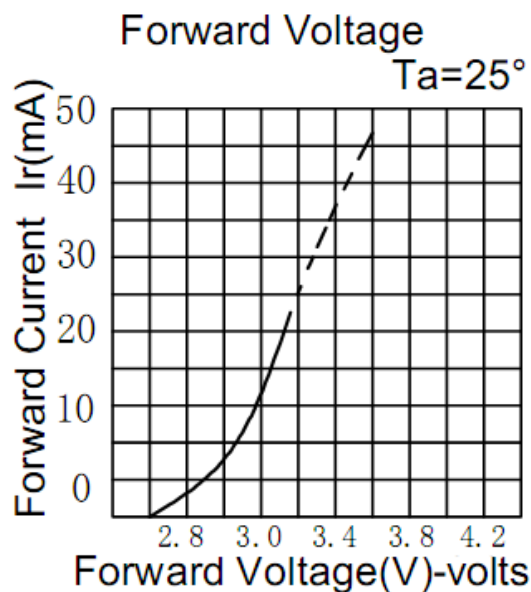
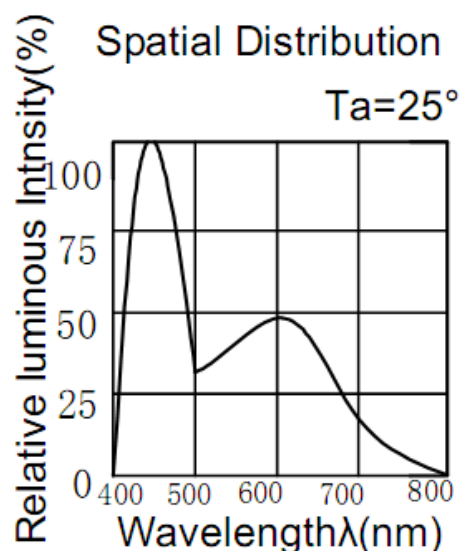
1. All dimensions are in millimeters (inches);
2. Tolerances are $\pm 0.1\text{mm}$ (0.004inch) unless otherwise noted.

Absolute Maximum Ratings (TA=25°C)

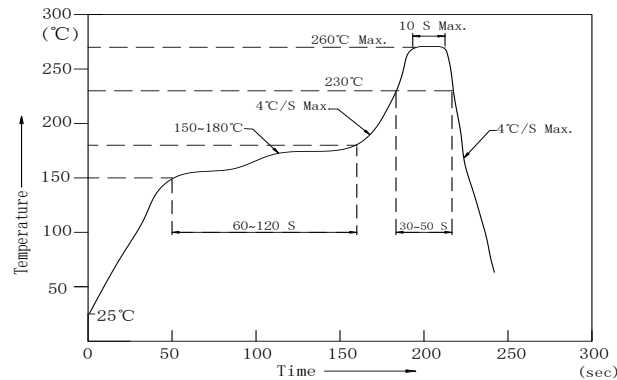
Parameter	Symbol	Value	Unit
Forward current	If	30	mA
Reverse voltage	Vr	5	V
Power dissipation	Pd	102	mW
Operating temperature	Top	-40 ~+80	°C
Storage temperature	Tstg	-40 ~+85	°C
Peak pulsing current (1/8 duty f=1kHz)	Ifp	125	mA

Electro-Optical Characteristics (TA=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
CIE Coordinates	If=2mA	λ D	--	0.2856 0.2988	--	--
Forward voltage	If=2mA	Vf	2.4	--	2.9	V
Luminous intensity	If=2mA	Iv	73	110	160	mcd
Viewing angle at 50% Iv	If=10mA	2 θ 1/2	--	140	--	Deg
Reverse current	Vr=5V	Ir	--	--	10	μ A



■ Reflow Temp/Time



Notes:

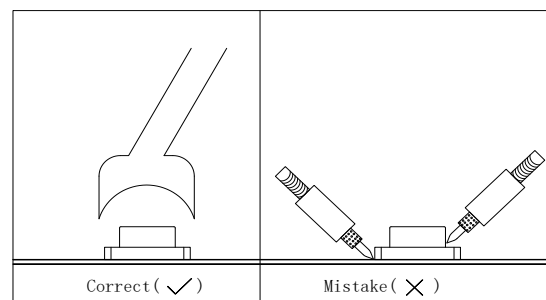
1. We recommend the reflow temperature $240^{\circ}\text{C} (\pm 5^{\circ}\text{C})$. the maximum soldering temperature should be limited to 260°C .
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 1 times or less.

■ Soldering iron

Basic spec is $\leq 5\text{sec}$ when $320^{\circ}\text{C} (\pm 20^{\circ}\text{C})$. If temperature is higher, time should be shorter ($+10^{\circ}\text{C} \rightarrow -1\text{sec}$). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 350°C .

■ Rework

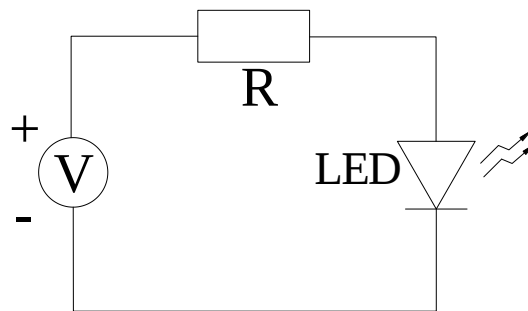
1. Customer must finish rework within 5 sec under 340°C .
2. The head of iron can not touch copper foil
3. Twin-head type is preferred.



- Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow solder etc.

Test circuit and handling precautions

■ Test circuit



■ Handling precautions

1. Over-current-proof

Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

2.1 It is recommended to store the products in the following conditions:

Humidity: 60% R.H. Max.

Temperature : 5°C~30°C(41°F~86°F)

2.2 Shelf life in sealed bag: 12 month at <5°C~30°C and <30% R.H. after

the package is Opened, the products should be used within a week or they should be keeping to stored at ≤ 20 R.H. with zip-lock sealed.

3. Baking

It is recommended to baking before soldering when the pack is unsealed after 72hrs. The Conditions are as followings:

3.1 $60 \pm 3^\circ\text{C}$ x(12~24hrs) and <5%RH, taped reel type

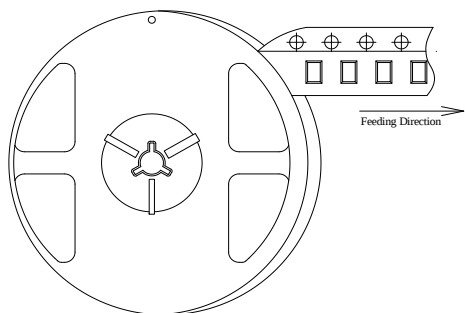
3.2 $100 \pm 3^\circ\text{C}$ x(45min~1hr), bulk type

3.3 $130 \pm 3^\circ\text{C}$ x(15~30min), bulk type

Test items and results of reliability

Type	Test Item	Test Conditions	Note	Number of Damaged
Environmental Sequence	Temperature Cycle	-40℃ 30min ↑ → (25℃/5min) ↓ 100℃ 30min	100 cycle	0/22
	Thermal Shock	-40℃ 15min ↑ ↓ 100℃ 15min	100 cycle	0/22
	High Humidity Heat Cycle	30℃ ⇔ 65℃ 90%RH 24hrs/1cycle	10 cycle	0/22
	High Temperature Storage	Ta=100℃	1000 hrs	0/22
	Humidity Heat Storage	Ta=60℃ RH=95%	1000 hrs	0/22
	Low Temperature Storage	Ta=-40℃	1000 hrs	0/22
Operation Sequence	Life Test	Ta=25℃ IF=20mA	1000 hrs	0/22
	High Humidity Heat Life Test	60℃ RH=95% IF=10mA	500 hrs	0/22
	Low Temperature Life Test	Ta=-20℃ IF=20mA	1000 hrs	0/22

- Feeding Direction



Technical drawing of a mechanical part, showing a top view and a side view.

Top View Dimensions:

- Overall width: 8.00 [0.31"]
- Overall length: 4.00 [0.16"]
- Distance between hole centers: 2.00 [0.08"]
- Hole diameter: $\phi 1.50$ [$\phi 0.06$ "]
- Distance from right edge to hole center: 1.75 [0.07"]
- Distance from left edge to hole center: 1.75 [0.07"]

Side View Dimensions:

- Overall height: 5.25 [0.21"]
- Top flange width: 0.18 [0.01"]
- Central slot width: 1.15 [0.05"]
- Distance from bottom edge to slot center: 0.55 [0.02"]

Section lines A-A are indicated on both views.

Technical drawing of the LED strip assembly, showing top and side views with dimensions.

Top View:

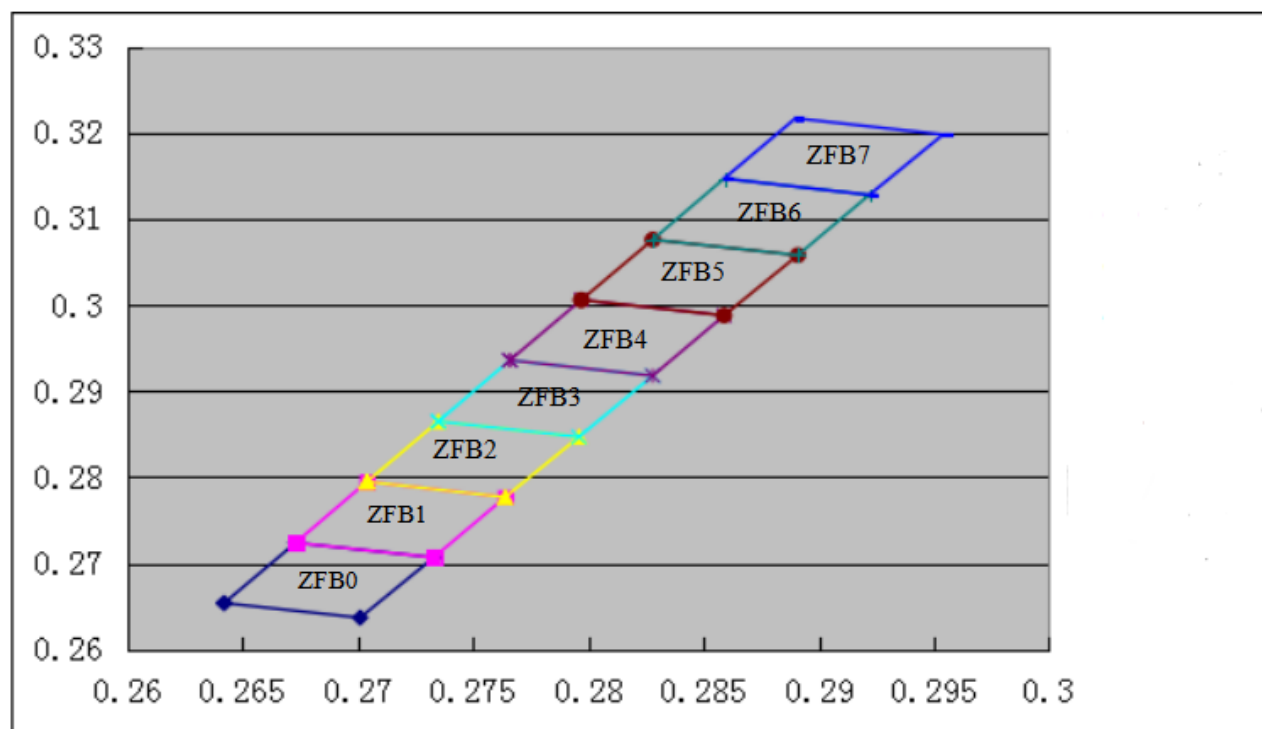
- Empty parts (Min.25pcs):** Indicated by a dimension line on the left.
- Loaded parts (LED:4000pcs):** Indicated by a dimension line in the center.
- Empty parts (Min.75pcs):** Indicated by a dimension line on the right.

Side View:

- Conclusion parts (Min.100mm):** Indicated by a dimension line on the left.
- Introduction parts (Min.300mm):** Indicated by a dimension line on the right.

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole in accordance with ANSI/EIA RS-481 specifications.
4. 4,000 pcs/Reel.

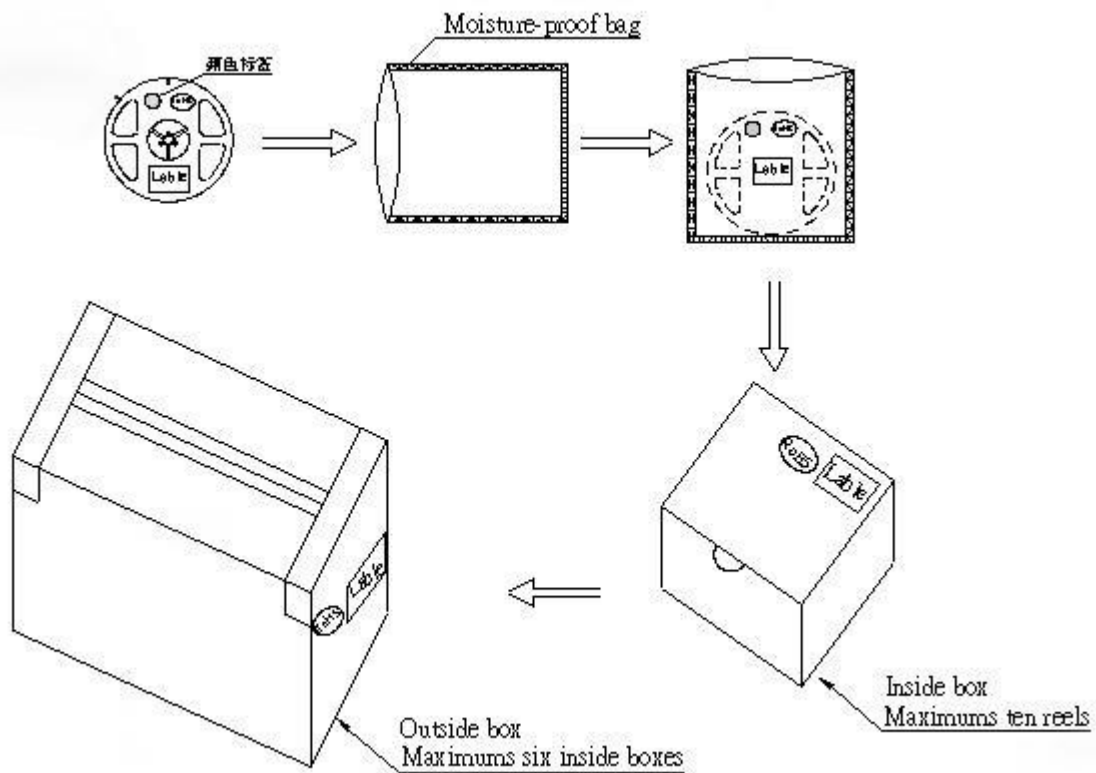
XY Chromaticity Coordinate



序号	X1	Y1	X2	Y2	X3	Y3	X4	Y4	X1	Y1
ZFB0	0.2642	0.2654	0.2701	0.2637	0.2733	0.2707	0.2673	0.2724	0.2642	0.2654
ZFB1	0.2673	0.2724	0.2733	0.2707	0.2764	0.2777	0.2704	0.2795	0.2673	0.2724
ZFB2	0.2704	0.2795	0.2764	0.2777	0.2796	0.2847	0.2735	0.2865	0.2704	0.2795
ZFB3	0.2735	0.2865	0.2796	0.2847	0.2828	0.2918	0.2766	0.2936	0.2735	0.2865
ZFB4	0.2766	0.2936	0.2828	0.2918	0.2859	0.2988	0.2797	0.3006	0.2766	0.2936
ZFB5	0.2797	0.3006	0.2859	0.2988	0.2891	0.3058	0.2828	0.3076	0.2797	0.3006
ZFB6	0.2828	0.3076	0.2891	0.3058	0.2922	0.3128	0.2859	0.3147	0.2828	0.3076
ZFB7	0.2859	0.3147	0.2922	0.3128	0.2954	0.3198	0.289	0.3217	0.2859	0.3147

1005 Series SMD Chip LED Lamps Packaging Specifications

- Packaging specifications



Notes:

Reeled products (numbers of products are 4,000pcs) packed in a seal off moisture-proof bag along with a desiccant one by one, ten moisture-proof bag of maximums (total maximum number of products are 40,000pcs) packed in an inside box (about size: 240x 220x 120mm) and four inside boxes of maximums are put in the outside box (about size: 460mm x 246mm x 250mm) Together with buffer material, and it is packed. (Part No., Lot No., quantity should appear on the label on the moisture-proof bag, part No. and quantity should appear on the label on the cardboard box.) The number of the loading steps of outside box (cardboard box) has it to three steps.