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SPECIFICATION

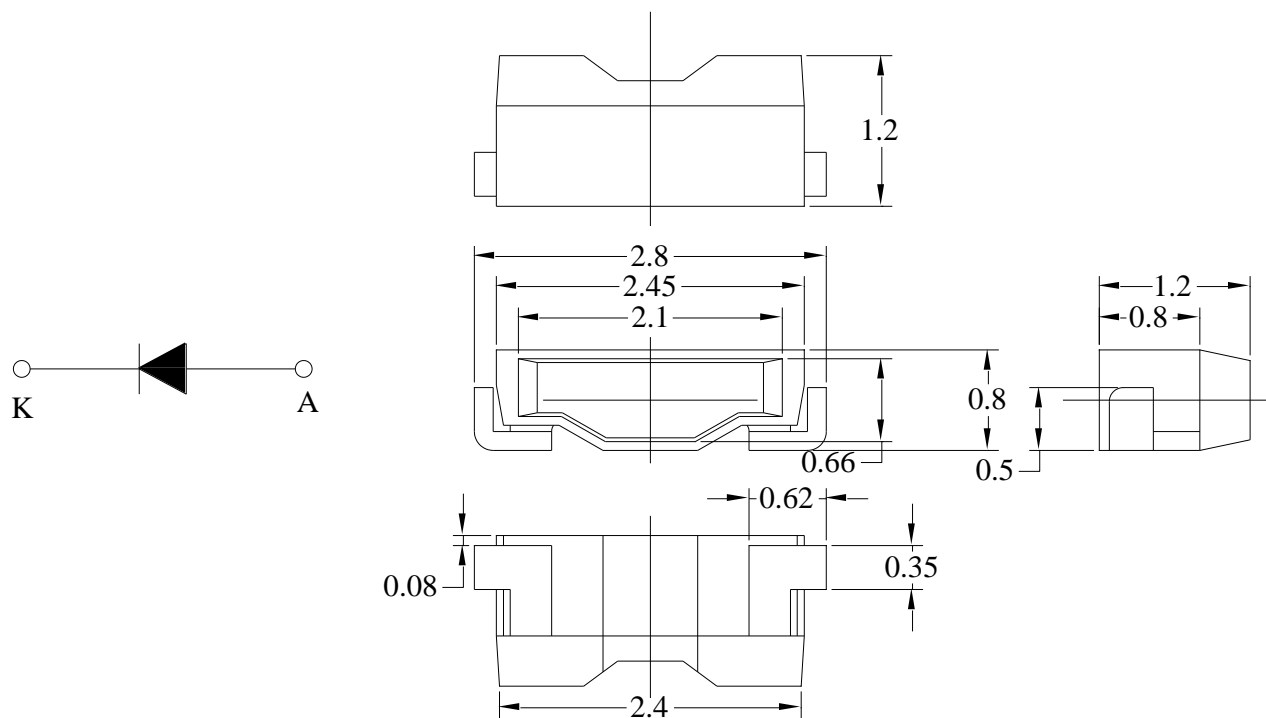
PART NO. : LT1CN3-4W-1UPL3B5S47

RIGHT ANGLE SMD LED TYPE



Approved by	Checked by	Prepared by
<i>Yue</i>	<i>Lian</i>	<i>Lzc</i>

Package Dimensions



Notes:

1. All dimensions are in mm.
2. Tolerance is ± 0.25 mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LT1CN3-4W-1UPL3B5S47	InGaN/Sapphire	White	Yellow Diffused

Absolute Maximum Ratings at Ta=25 °C

Parameter	Symbol	Rating	Unit
Power Dissipation	P _d	108	mW
Reverse Voltage	V _r	5	V
D.C. Forward Current	I _f	30	mA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	I _f (Peak)	100	mA
Operating Temperature Range	T _{opr.}	-40 to +100	°C
Storage Temperature Range	T _{stg.}	-40 to +100	°C
Soldering Temperature	T _{sld.}	Reflow Soldering: 260°C for 10 sec.	
Electric Static Discharge Threshold (HBM)	ESD	300	V

Electrical and Optical Characteristics:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	I _v	I _f =20mA	1200	1600		mcd
Luminous Flux	Φ _v	I _f =20mA	-	3600	-	mlm
Forward Voltage	V _f	I _f =20mA	2.8		3.6	V
CIE Chromaticity Coordinates : X Axis	X	I _f =20mA		0.287		
CIE Chromaticity Coordinates : Y Axis	Y	I _f =20mA		0.279		
Reverse Current	I _r	V _r =5V	-		50	μA
Viewing Angle	2 θ 1/2	I _f =20mA	-	120	-	deg

Notes: 1.Tolerance of Luminous Intensity is ±15%

2.Tolerance of Forward Voltage is ±0.1V

3.Tolerance of Correlated Colour Temperature is ±7%

4.Tolerance of Color Rendering Index is ±2



LT1CN3-4W-1UPL3B5S47

RIGHT ANGLE
SMD LED TYPE

Forward Voltage Rank Combination (IF=20mA)

Rank	Min.	Max.	Unit
V19	2.8	2.9	V
V20	2.9	3.0	
V21	3.0	3.1	
V22	3.1	3.2	
V23	3.2	3.3	
V24	3.3	3.4	
V25	3.4	3.5	
V26	3.5	3.6	

Luminous Intensity Rank Combination (IF=20mA)

Rank	Min.	Max.	Unit
C	1200	1400	mcd
D	1400	1600	
E	1600	1800	
F	1800	2000	
G	2000	2200	

Typical Electrical/Optical Characteristic Curves

(25°C Ambient Temperature Unless Otherwise Noted)

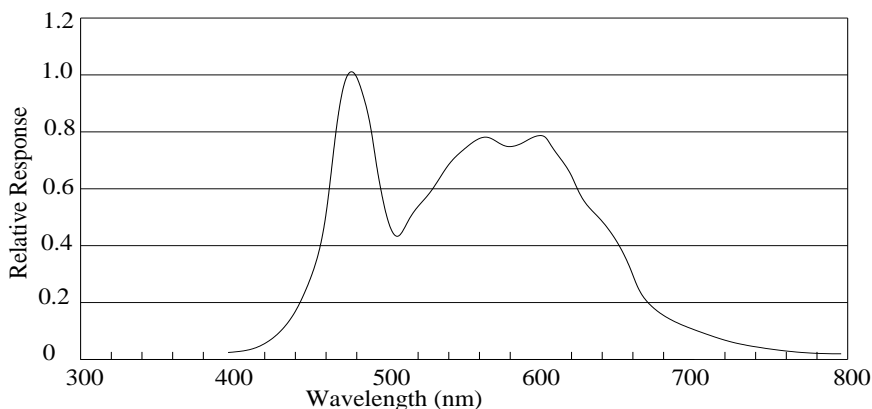
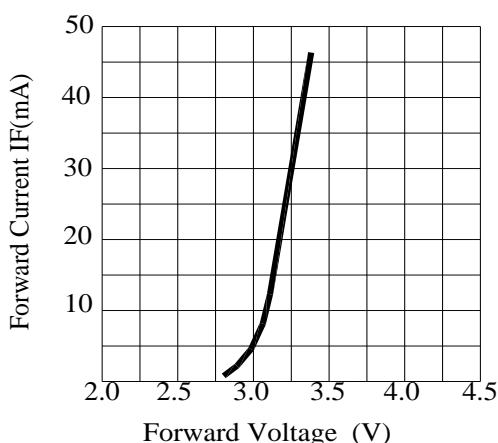
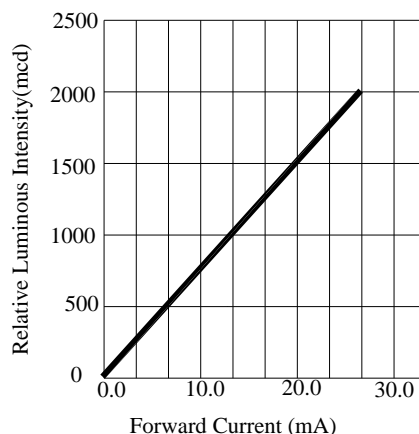


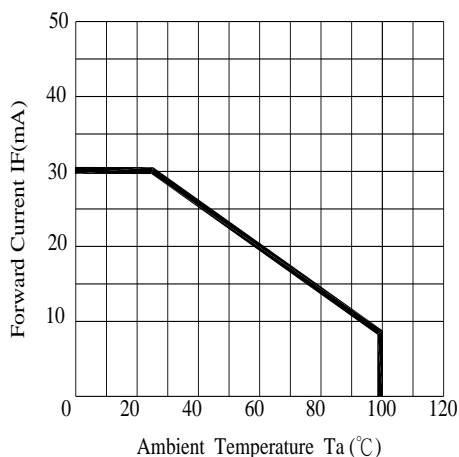
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



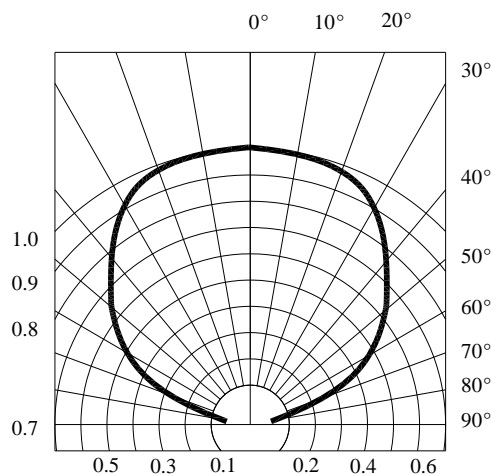
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

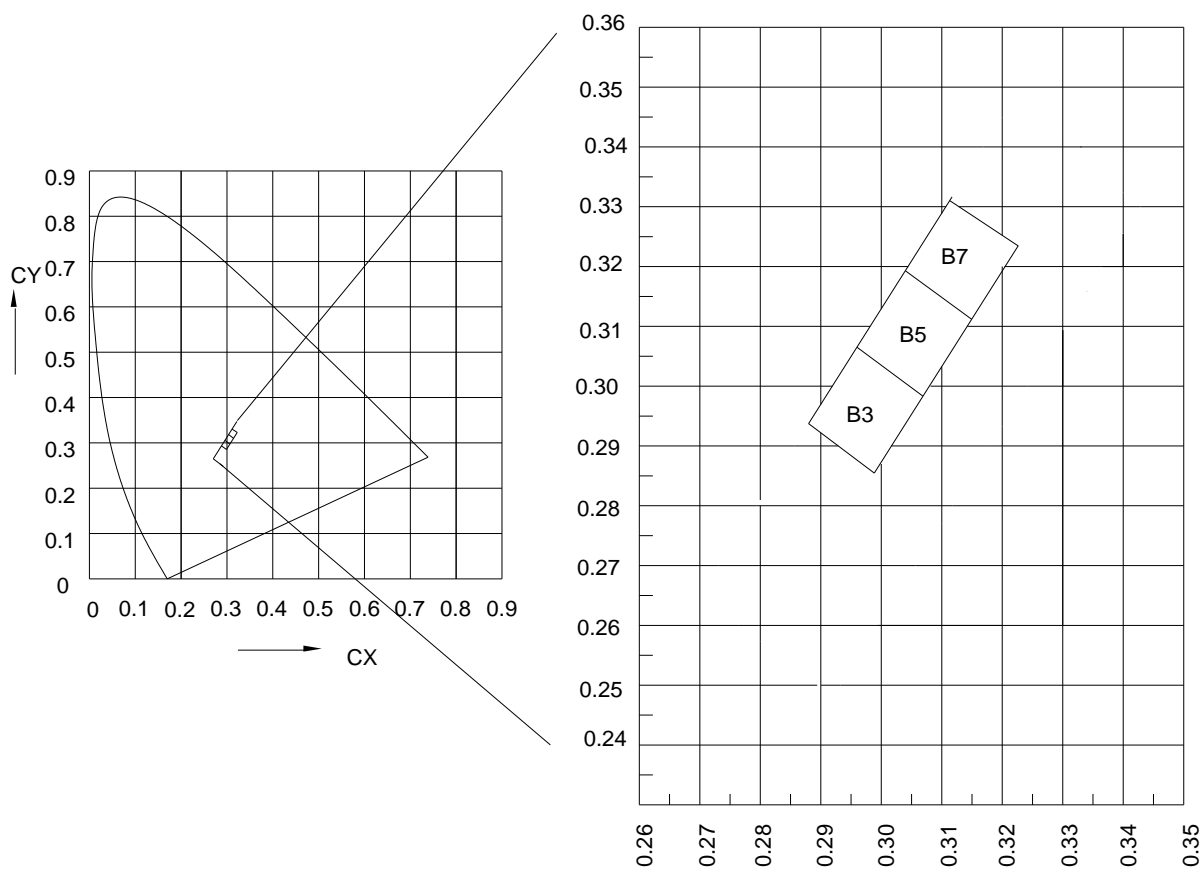
Chromaticity Coordinates Specifications for Bin Grading:

COLOR RANKS (IF=20mA.Ta=25°C)

BIN	RANK				
	X	Y	Z	U	V
B3	X	0.288	0.296	0.307	0.299
	Y	0.294	0.307	0.298	0.286
B5	X	0.296	0.304	0.315	0.307
	Y	0.307	0.319	0.311	0.298
B7	X	0.304	0.312	0.323	0.315
	Y	0.319	0.331	0.323	0.311

Note: X.Y Tolerance each Bin limit is±0.01.

Chromaticity Coordinates & Bin grading diagram:



PRECAUTION IN USE

Storage

Recommended storage environment

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Moisture measures: Please refer to Moisture-sensitive label on reels package bags.

If unused LEDs remain, they should be stored in moisture proof packages, such as sealed container with packages of moisture absorbent material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

Fold the opened bag firmly and keep in dry environment.

Soldering

Reflow Soldering		
	Lead Solder	Lead - free Solder
Pre-heat	120~150°C	180~200°C
Pre-heat time	120sec. Max.	120sec. Max.
Peak temperature	240°C Max.	260°C Max.
Soldering time	10sec. Max.	10sec. Max.
Condition	refer to Temperature- profile 1	refer to Temperature- profile 2

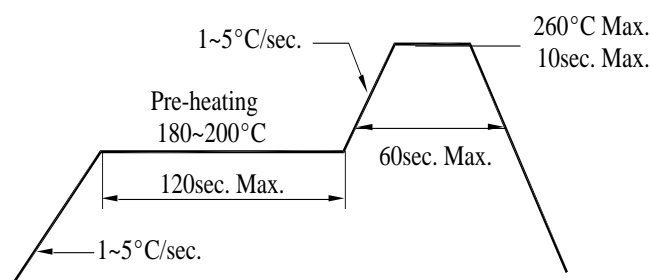
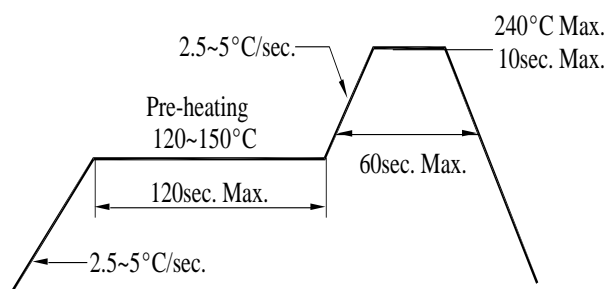
*After reflow soldering rapid cooling should be avoided.

[Temperature-profile (Surface of circuit board)]

Use the conditions shown to the under figure.

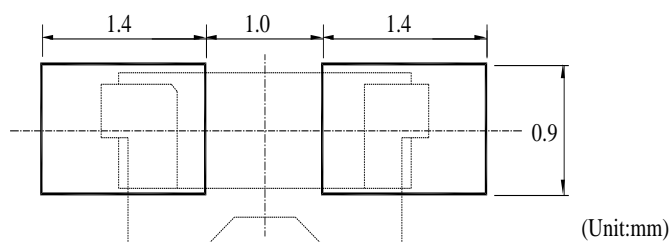
<1 : Lead Solder>

<2 : Lead-free Solder>



[Recommended soldering pad design]

Use the following conditions shown in the figure.



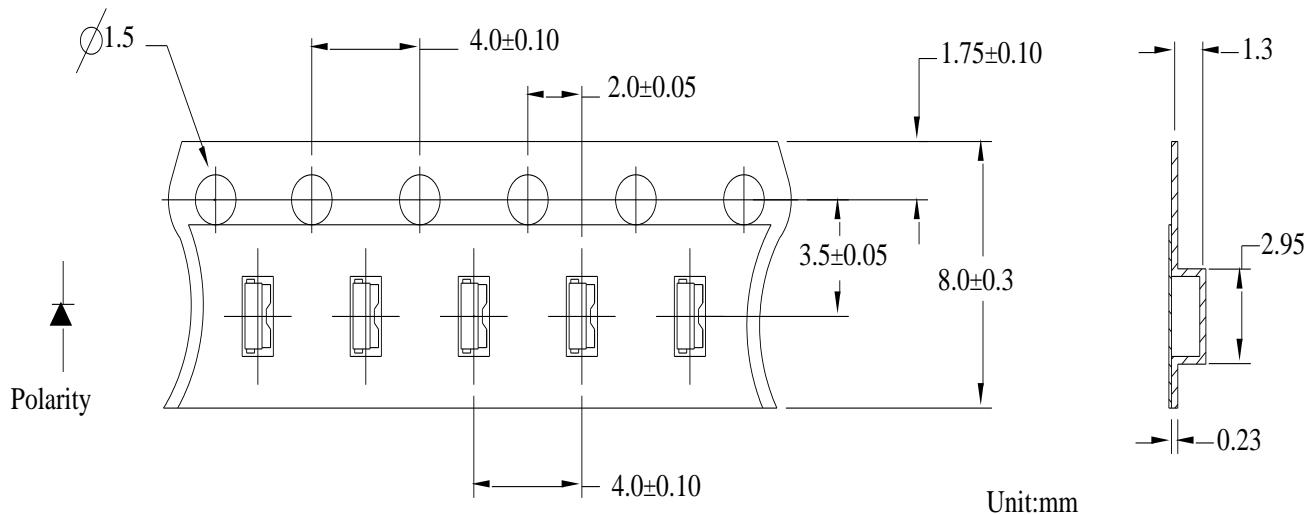
Sulfur-sensitive

- There is silver-plated metal part on the inner/outer side of the outer package.
If exposed to the condition with corrosive gas, the silver plating surface may go bad, which will affect soldering strength and optical properties. Therefore, after opening it must be kept in a sealed container, etc.
- Materials contain sulfur component (gasket, adhesive, etc.) may have bad effects on the surface of the coating, so please do not use such materials in the product.
- In cardboard boxes and rubber, even in the atmosphere may contain minute amount of corrosive gases; In addition, the resin material may also contain halogen which has a bad effect on the surface of the coating.
- Even if the soldering installation and product assembly finished, by the effect of corrosive gas generated by relative materials of LED and external injected, the coating surface may go bad, so it is necessary to design the product taking into account the above factors.
- If requires, it is best to use a silicone washer, but be aware that low molecular silicone may cause the product poor contact.
- Keep the product in location where has less temperature change, because moisture condensation would be generated under a condition of strong temperature change.

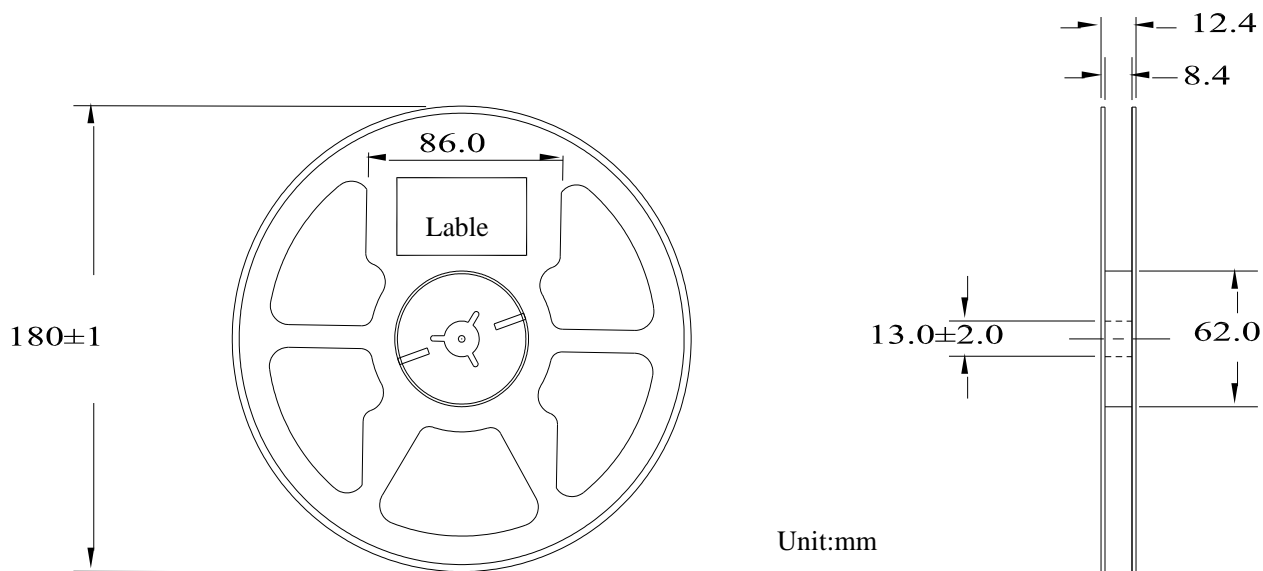
DISCLAIMER

1. Our department reserves the right(s) on the adjustment of product material mix for the specification.
2. The product meets our department published specification for a period of twelve (12) months from date of shipment.
3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Our department assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
5. These specification sheets include materials protected under copyright of our department.
Reproduction in any form is prohibited without obtaining our department's prior consent.
6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized our department sales agent for special application request.

Dimensions for Tape



Dimensions for Reel



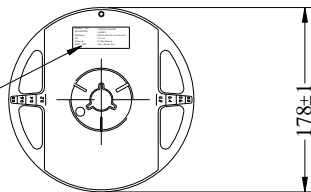
Notes:

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2. Specifications are subject to change without notice.

Packing

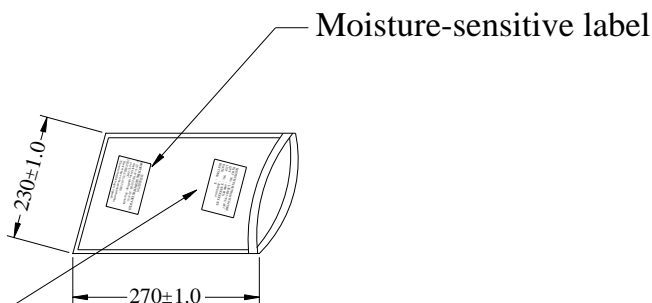
REEL
QUANTITY: 3,500 PCS

LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX
QTY : PCS
LOT NO :XXXXXXXXXX
DATE :
BIN CODE:



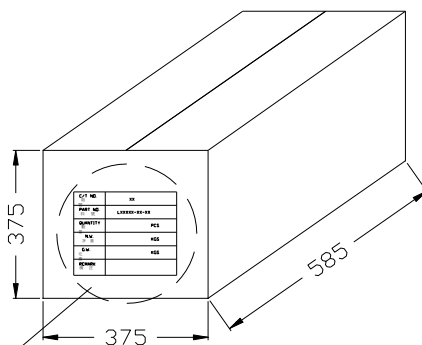
BAG
QUANTITY: 3,500 PCS

LEDTECH ELECTRONICS CORP.
PART NO :LTXXXX-XX
QTY : PCS
LOT NO :XXXXXXXXXX
DATE :
BIN CODE:



OUTER CARTON:
QUANTITY: 85 BAGS
TOTAL: 297,500PCS

C/T NO. 箱 號	XX
PART NO. 料 號	XXXXXXXXXXXXXX
QUANTITY 數 量	PCS
N.W. 淨 重	KGS
G.W. 毛 重	KGS
REMARK 備 註	



Notes:

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