



PARA LIGHT ELECTRONICS CO., LTD.

11F., No. 8, Jiankang Rd., Zhonghe Dist., New Taipei City 235, Taiwan

Tel: 886-2-2225-3733

Fax: 886-2-2225-4800

E-mail: para@para.com.tw

www.paralighttaiwan.com

DATA SHEET

PART NO.: L-T3535IR1CT-55-72-1W-ZGY

REV: A / 0

CUSTOMER'S APPROVAL: _____

DCC: _____

DRAWING NO.: DS-81P-19-0031

DATE: 2019-07-26

PAGE

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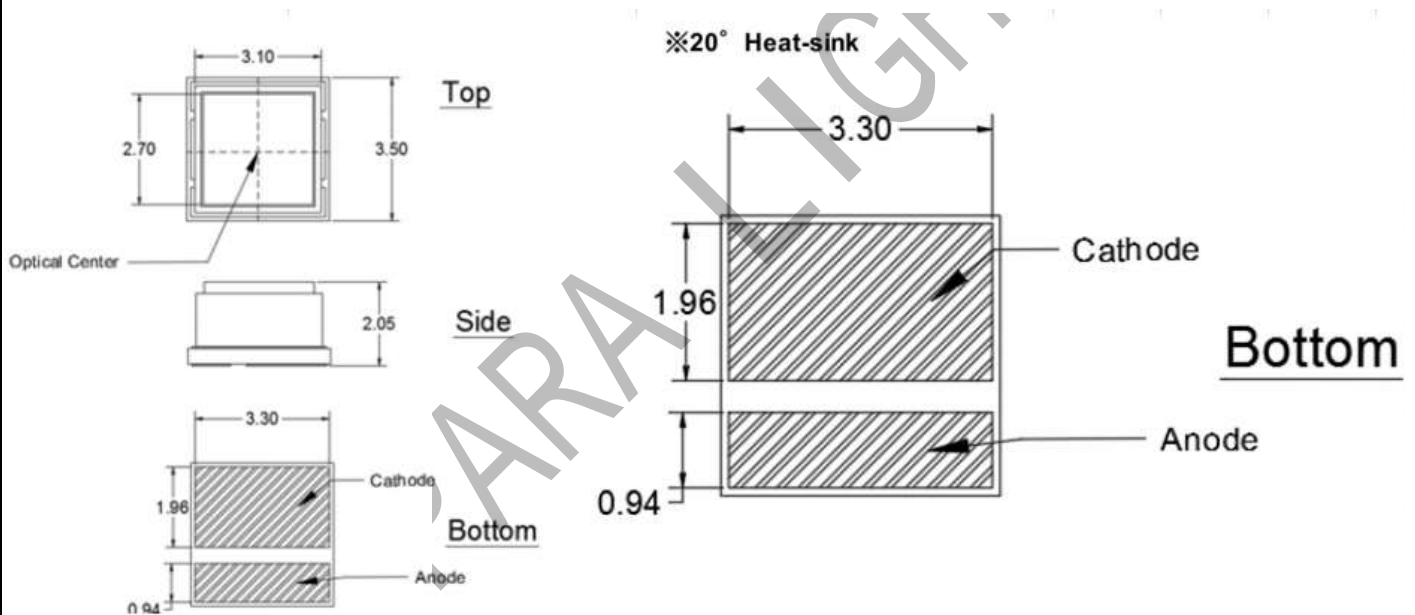
Technical Data Sheet

- | | | |
|------------------------|---------------------|------------------------|
| 1. Gesture recognition | 2. Distance sensing | 3. Spatial positioning |
| 4. Face recognition | 5. AR/VR | 6. LIDAR |

■ Features

- 2. Suitable for all SMT assembly methods.
- 3. Compatible with infrared and vapor phase reflow solder process.
- 4. Compatible with automatic placement equipment.
- 5. This product doesn't contain restriction Substance, comply ROHS standard

■ Package Dimensions





SURFACE MOUNT DEVICE LED

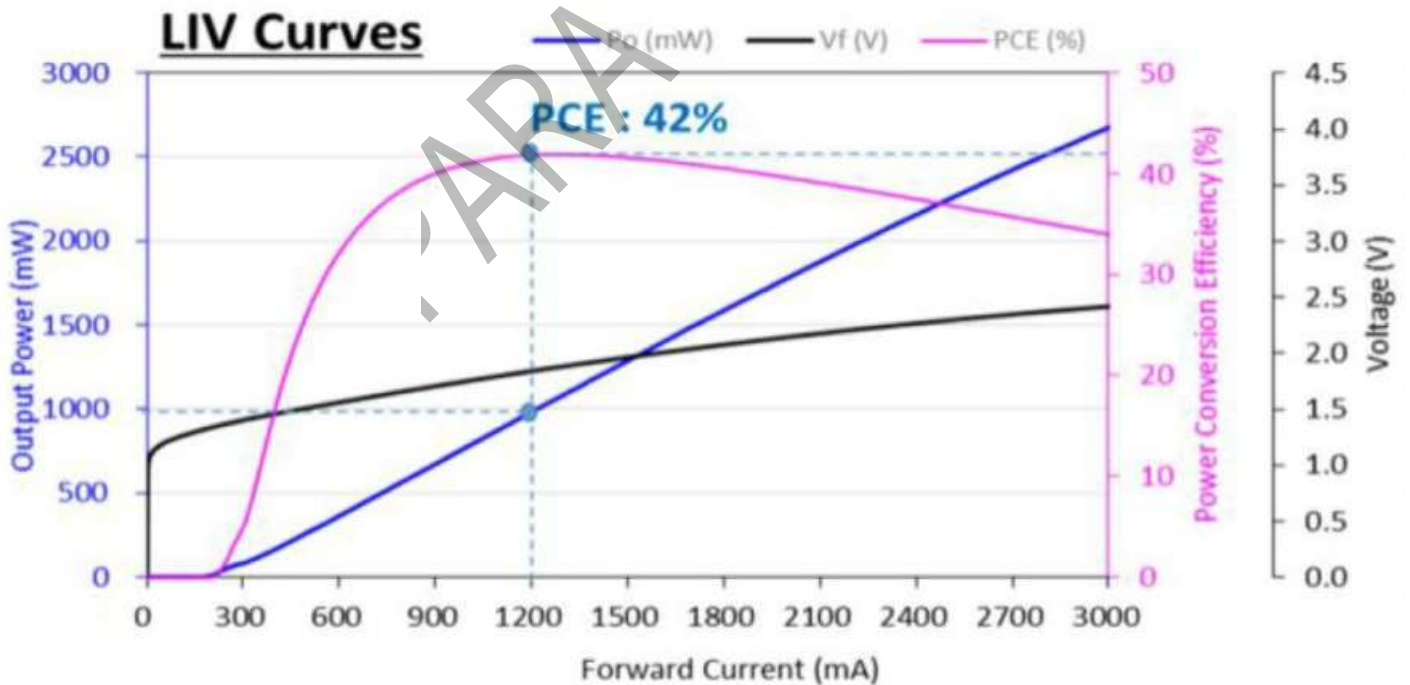
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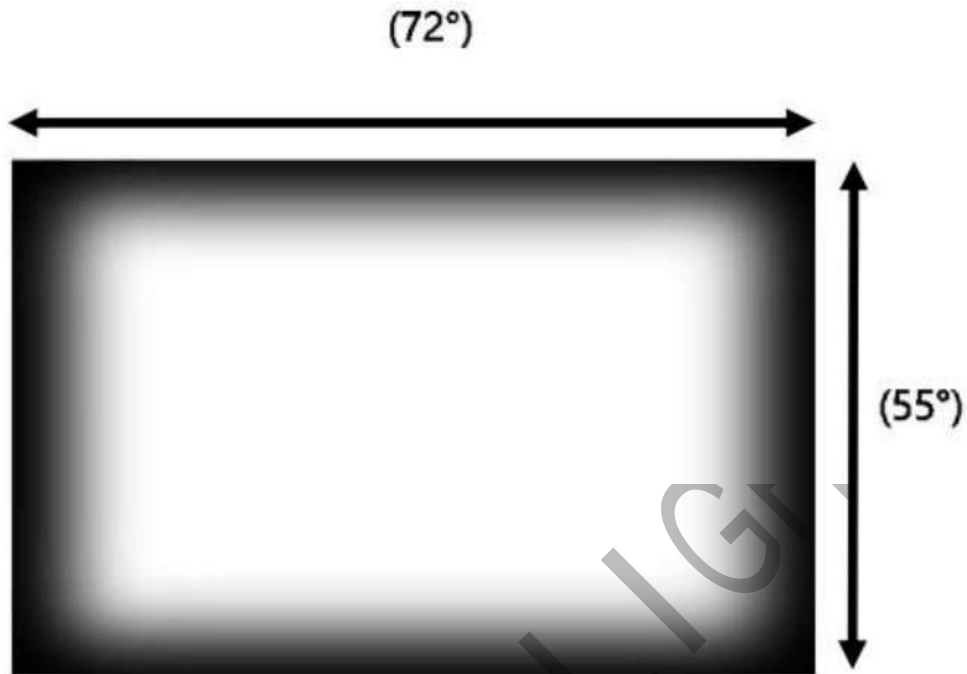
■ Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Datasheet	Unit
Forward Voltage	Vf	If=1.25A	2.0	V
Wavelength	λ_p	If=1.25A	940	nm
Radiant Power	Φ_e	If=1.25A	1000	mW
Slope Efficiency	SE	--	1	W/A
Spectral Width			0.8	nm
Divergence Angle(FWHM)	θ		72*55	deg
Threshold Current	If		0.22	A

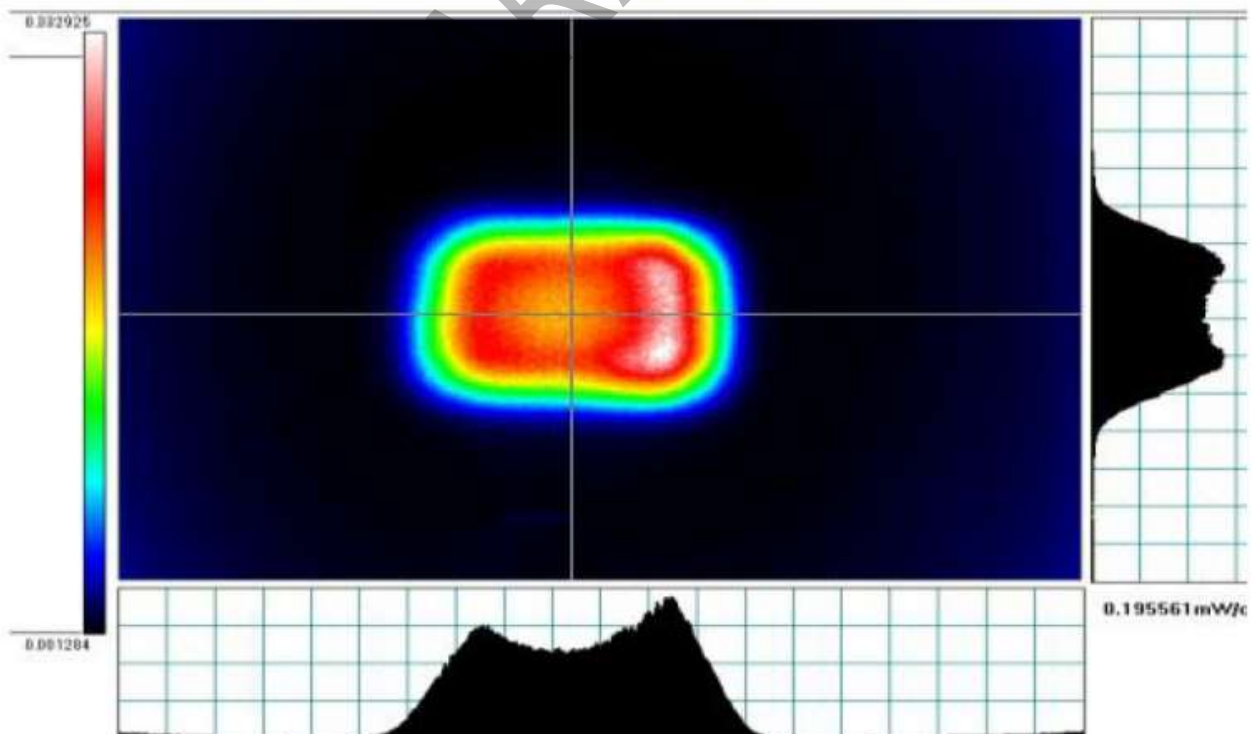
IF-IV Curve

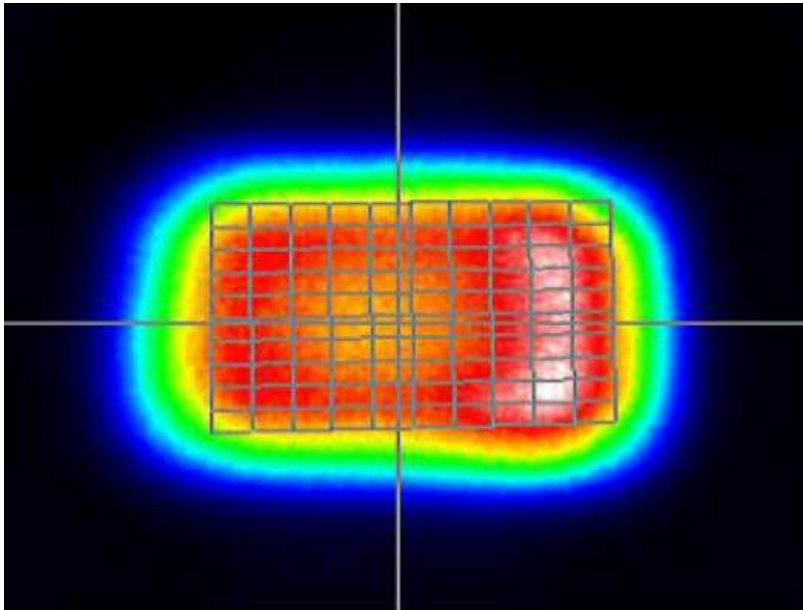


Typical Electro-Optical Characteristics Curves



Radiation energy distribution





Reliability Test

Classification	Test Item	Reference Standard	Test Conditions	Result
Endurance Test	Operation Life	MIL-STD-750:1026 MIL-STD-883:1005 JIS-C-7021 :B-1	Connect with a power $I_f=1250\text{mA}$ T_a =Under room temperature Test time=1,000hrs	0/100
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS-C-7021 :B-11	$T_a=+65^\circ\text{C} \pm 5^\circ\text{C}$ RH=90%-95% Test time=240hrs	0/100
	High Temperature Storage	MIL-STD-883:1008 JIS-C-7021 :B-10	High $T_a=+85^\circ\text{C} \pm 5^\circ\text{C}$ Test time=1,000hrs	0/100
	Low Temperature Storage	JIS-C-7021 :B-12	Low $T_a=-35^\circ\text{C} \pm 5^\circ\text{C}$ Test time=1,000hrs	0/100
Environmental Test	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS-C-7021 :A-4	$-35^\circ\text{C} \sim +25^\circ\text{C} \sim +85^\circ\text{C} \sim +25^\circ\text{C}$ 60min 20min 60min 20min Test Time=5cycle	0/100
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	$-35^\circ\text{C} \pm 5^\circ\text{C} \sim +85^\circ\text{C} \pm 5^\circ\text{C}$ 20min 20min Test Time=10cycle	0/100
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS-C-7021 :A-1	Preheating: 140°C -160°C , within 2 minutes. Operation heating: 235°C (Max.), within 10seconds. (Max.)	0/100



SURFACE MOUNT DEVICE LED

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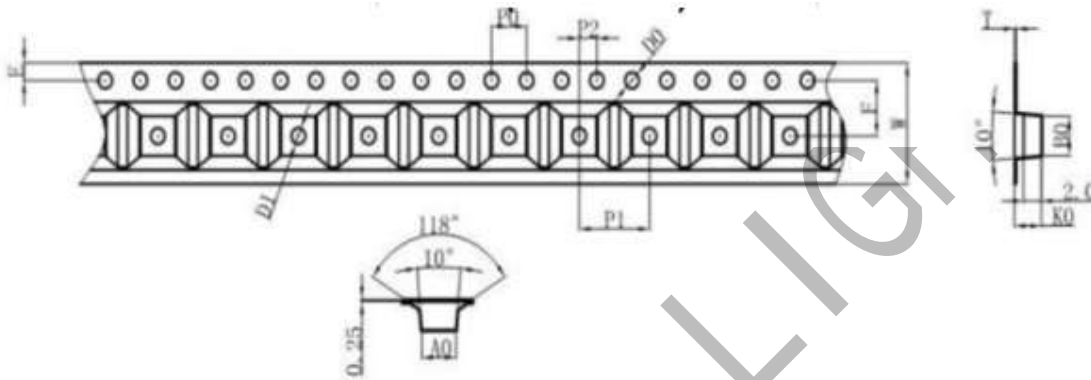
REV:A / 0

●Package Dimensions:

NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.10\text{mm}$ (0.004") unless otherwise specified.
3. Specifications are subject to change without notice.
4. Condition for IFp is pulse of 1/10 duty and 0.1msec width.

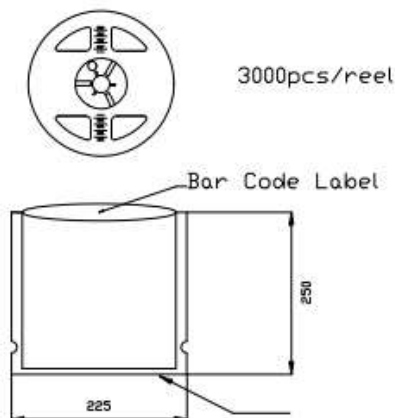
Tapping and packaging specifications(Units: mm)



ITEM	W	AO	BO	KO	E	F	DO	D1	P0	P1	P2	T
DIM	12.00	3.70	3.90	3.10	1.75	5.50	1.50	1.60	4.00	8.00	2.00	0.28
TOLE	+0.30 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 0.00	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.03 -0.03

Package Method:(unit:mm)

Label:



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PARALIGHT ELECTRONICS CO., LTD

CUS.PART NO:

CUSTOMER:

PART NO:

LOT NO:

QUANTITY:

DATE CODE:

WD:

VF:

IE:

QC: RoHS

●Soldering :

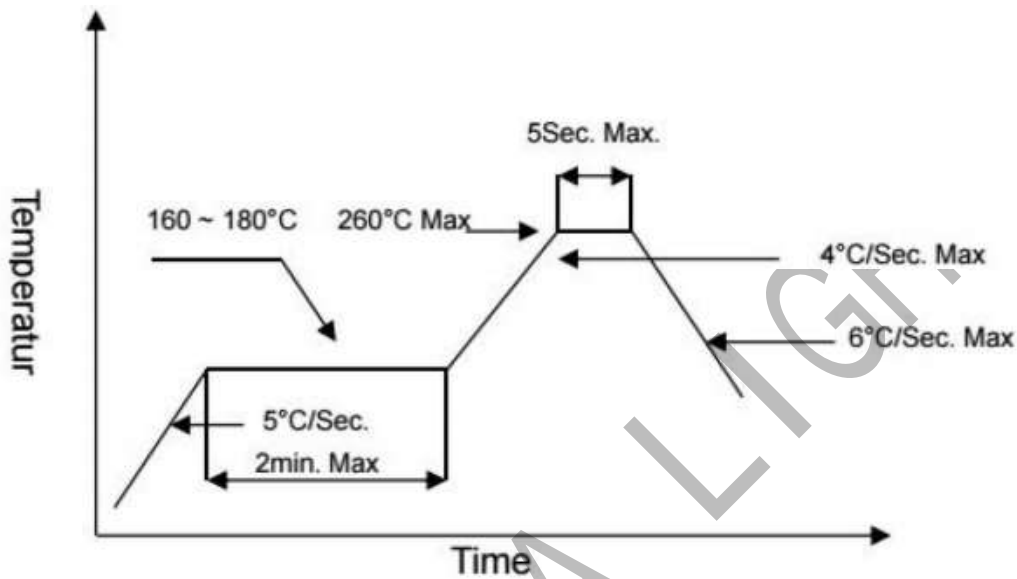
1. Manual Of Soldering

The temperature of the iron tip should not be higher than 300°C(572°F) and Soldering within 3 seconds per solder-land is to be observed.

2. Reflow Soldering

Preheating : 140°C~160°C ±5°C, within 2 minutes. Operation heating : 260°C(Max.) within 10 seconds.(Max)

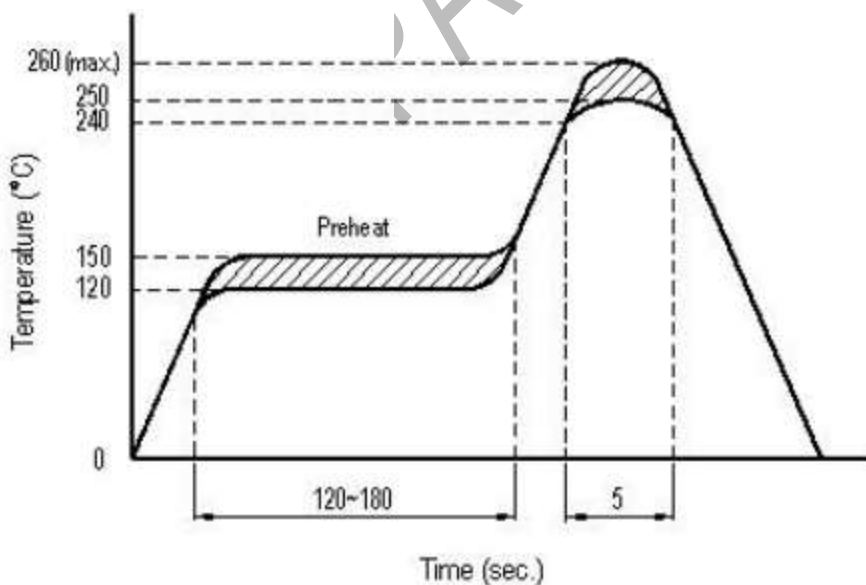
Gradual Cooling (Avoid quenching).



3. DIP soldering (Wave Soldering) :

Preheating : 120°C~150°C, within 120~180 sec. Operation heating : 245°C ±5°C within 5 sec. 260°C (Max)

Gradual Cooling (Avoid quenching)





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● Handling :

Care must be taken not to cause to the lens portion of SYLED VCSEL while it is exposed to high temperature. Care must be taken not rub the lens portion of SYLED VCSEL with hard or sharp article such as the sand blast and the metal hook.

● Notes for designing:

Care must be taken to provide the current limiting resistor in the circuit so as to drive the SYLED VCSEL within the rated figures. Also, caution should be taken not to overload SYLED VCSEL with instantaneous voltage at the turning ON and OFF of the circuit. When using the pulse drive care must be taken to keep the average current within the rated figures. Also, the circuit should be designed so as be subjected to reverse voltage when turning off the SYLED VCSEL

Storage:

In order to avoid the absorption of moisture, it is recommended to solder SYLED LEDs as soon as possible after unpacking the sealed envelope.

If the envelope is still packed, to store it in the environment as following:

- (1) Temperature : 5°C-30°C(41°F) Humidity : RH 60 % Max.
- (2) After this bag is opened, devices that will be applied to infrared reflow, vapor-phase reflow, or equivalent soldering process must be:
 - a. Completed within 24 hours.
 - b. Stored at less than 30% RH.
- (3) Devices require baking before mounting, if:
 - (2) a or (2) b is not met.
- (4) If baking is required, devices must be baked under below conditions: 12 hours at 60°C±3°C.

● Package and Label of Products:

Package: Products are packed in one bag of 3000 pcs (one taping reel) and a label is attached on each bag