



TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.
Tel : (852) 2540 7288 Fax : (852) 2517 1797
http://www.toyo-led.com E-mail : sales@toyo-led.com



P/N: TY-Y1206UY1(1.10)

1206 Package 3.2*1.6mm Surface Mount LEDs Series

SPECIFICATION FOR CUSTOMER APPROVAL

P/N: TY-Y1206UY1(1.10)

DATE : April 26, 2016

PREPARED BY : Chen Li fen

CONFIRMED BY : *Yan guoliang*

PLEASE CONFIRM & SIGN BACK THIS SHEET TO US

CUSTOMER: _____

APPROVAL BY: _____

(COMPANY CHOP)

(SIGNATURE)



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◇ Features:

- 3.2*1.6*1.1 mm
- Mono-color type
- Soldering methods :All SMT assembly methods
- Comply ROHS standard

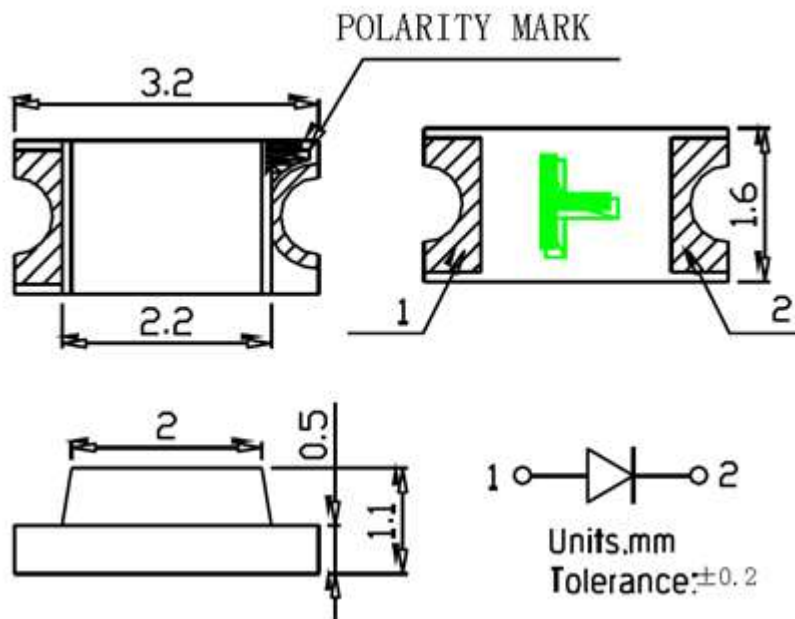
◇ Description

The Yellow source color devices are made with **AlGaInP** on sapphire Light Emitting Diode.

◇ Application

- Optical indicator
- Indicator and backlighting in telephone and fax
- Flat backlight for LCD, switch and symbol
- Light pipe application
- General use

◇ Package Dimensions



NOTES:

1. All dimensions are in millimeter[unit];
2. Tolerance is±0.1mm(0.004") unless other specified;
3. Specifications are subject to change without notice.



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Part No.	Emitted Color	Len's Color	Chip Material
TY-Y1206UY1(1.10)	Yellow	Water clear	AlGaInP

✧ Absolute Maximum Ratings(Ta=25°C)

Item	Symbol	Maximum	Unit
Power Dissipation	PD	75	mW
Continuous Forward Current	I _{Fmax}	30	mA
Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width)	I _{FP}	80	mA
Reverse Voltage	V _R	5	V
Operating Temperature Range	T _{opr}	-40 to+85	°C
Storage Temperature Range	T _{stg}	-40 to+85	°C
Lead Solder Temperature	T _{sol}	260°C for 3 seconds	

✧ Electrical/Optical Characteristics(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max	Unit
Forward Voltage	V _F	I _F =20mA	1.9	2.0	2.3	V
Luminous Intensity	I _v	I _F =20mA	70	150	---	mcd
Wavelength	λ	I _F =20mA	586	590	592	nm
Viewing Angle	2θ _{1/2}	I _F =20mA	--	120	--	Deg
Reverse Current	I _R	V _R =5V	--	--	10	uA



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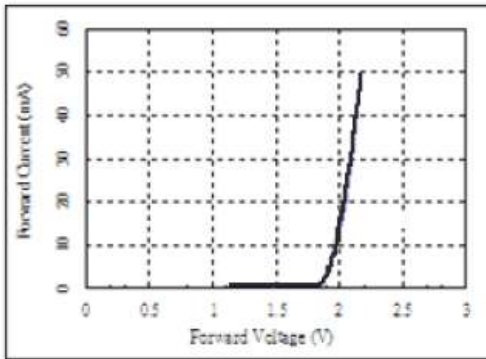


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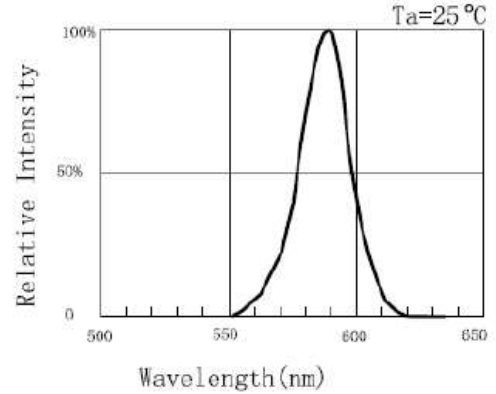
1206 Package 3.2*1.6mm Surface Mount LEDs Series

❖ Typical Electro-Optical Characteristics Curves

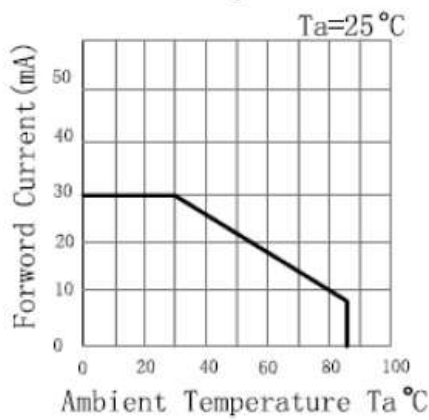
Forward Current Vs. Forward Voltage



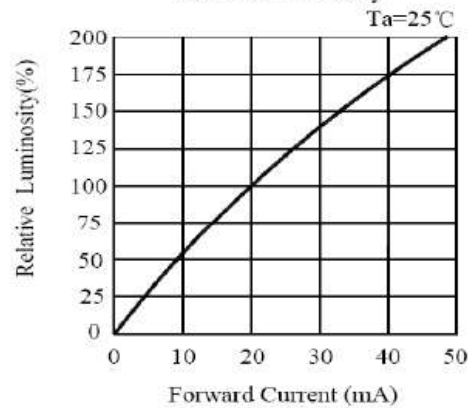
Relative Intensity VS Wavelength



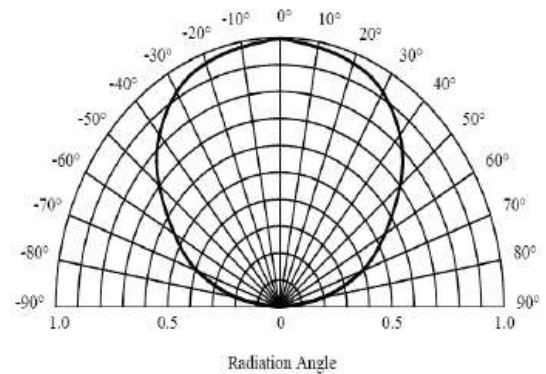
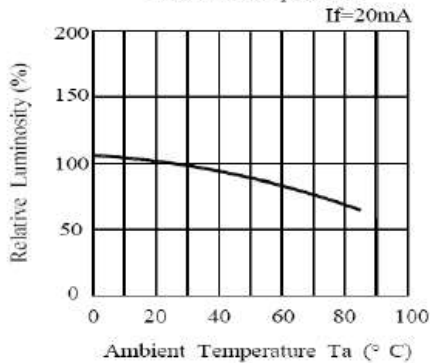
Forward Current VS Ambient Temperature



Forward Current Vs. Relative Luminosity



Relative Luminosity Vs. Ambient Temperature





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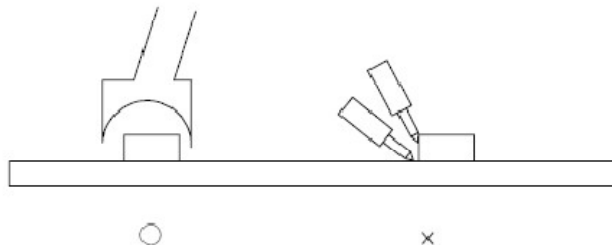
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◇ Reliability Test Items And Conditions

NO.	Item	Test Condition	Test Hr/cycle/time	Sample Q'ty	Ac/Re
1	Reflow	TEMP:260±5°C; Min.5Sec	6 min	22pcs	0/1
2	Temperature Cycle	H:+90°C 30mins To(5mins) L:-30°C 30mins	100 cycles	22pcs	0/1
3	Thermal Shock	H:+100°C 20mins To(5mins) L:-40°C 20mins	500 cycles	22pcs	0/1
4	High Temperature Storage	TEMP:+100°C	1000hrs	22pcs	0/1
5	Low Temperature Storage	TEMP:-30°C	1000hrs	22pcs	0/1
6	DC Operating Life	IF=20MA	1000hrs	22pcs	0/1
7	High Temperature	65°C	240hrs	22pcs	0/1
8	High Humidity	R.H.= 85%		22pcs	0/1

Rework

1. Customer must finish rework within 5 sec under 245°C
2. The head of iron can not touch copper foil.
3. Twin-head type is preferred.





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❖ Precautions For Use

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 time

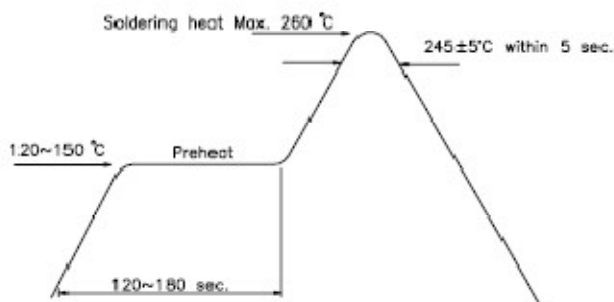
2.1 The operation of Temperature and RH are : 5°C~35°C , RH60%.

2.2 Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp proof box with desiccating agent. Considering the tape life , we suggest our customers to use our products within a year(from production date).

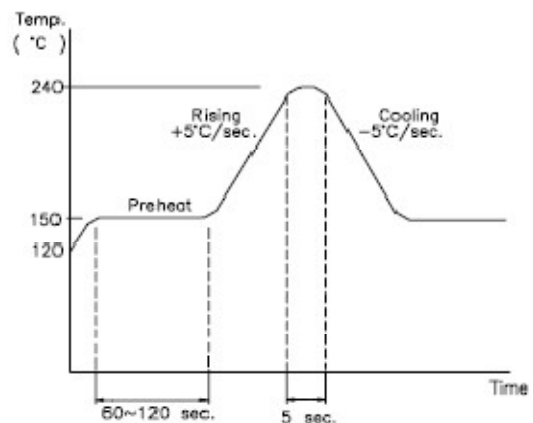
2.3 If opened more than one week in an atmosphere 5°C~35°C , RH 60%, they should be treated at 60°C± 5°C for 15hrs.

2.4 When you discover that the desiccant in the package has a pink color (Normal = blue) , you should treat them in the same conditions as 2.3.

Soldering heat



Reflow Temp / Time



Soldering Iron

Basic spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of Iron should be smaller than 15 W , and temperature should be controllable. Surface temperature of the device should be under 230 °C.



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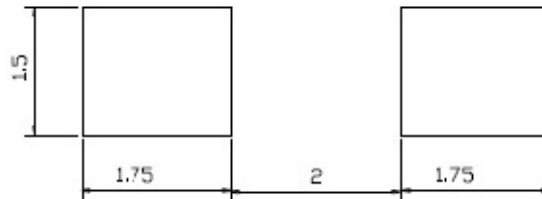
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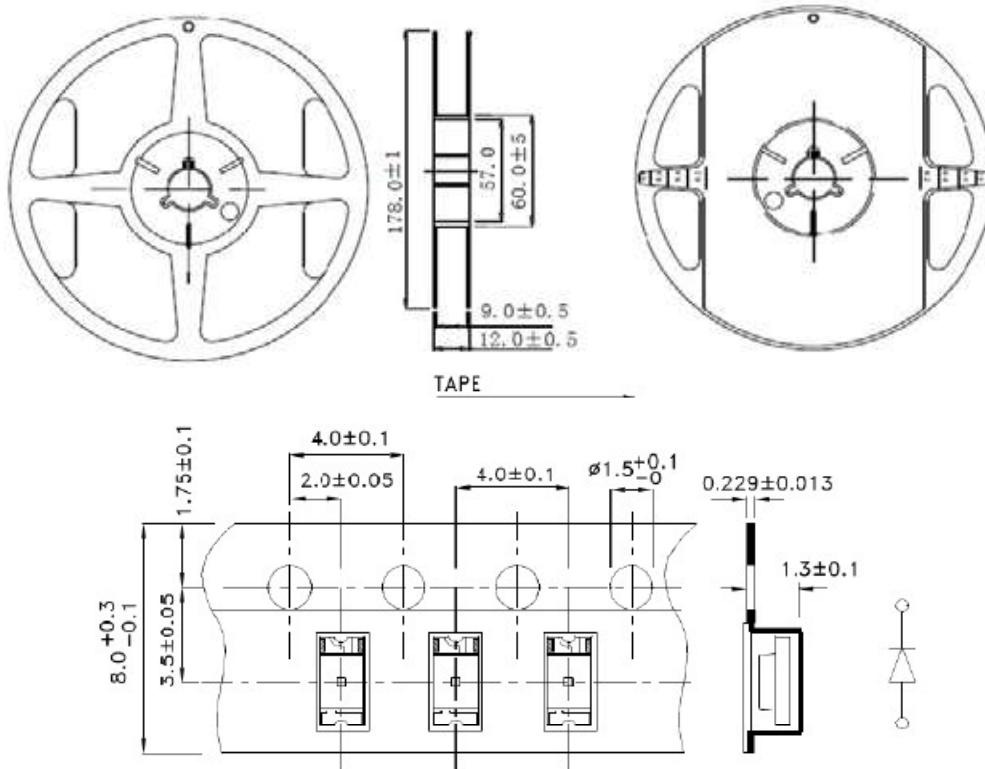
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◇ Recommended Soldering Pad Dimensions



◇ Tape Specification: 3,000pcs



◇ Package Label

SMD LED	
PART NO: _____	QA Pass
LOT NO : _____	
Q' TY : _____	Pb
VF : _____ IV : _____	
TC : _____ BIN: _____	
DATE : _____	
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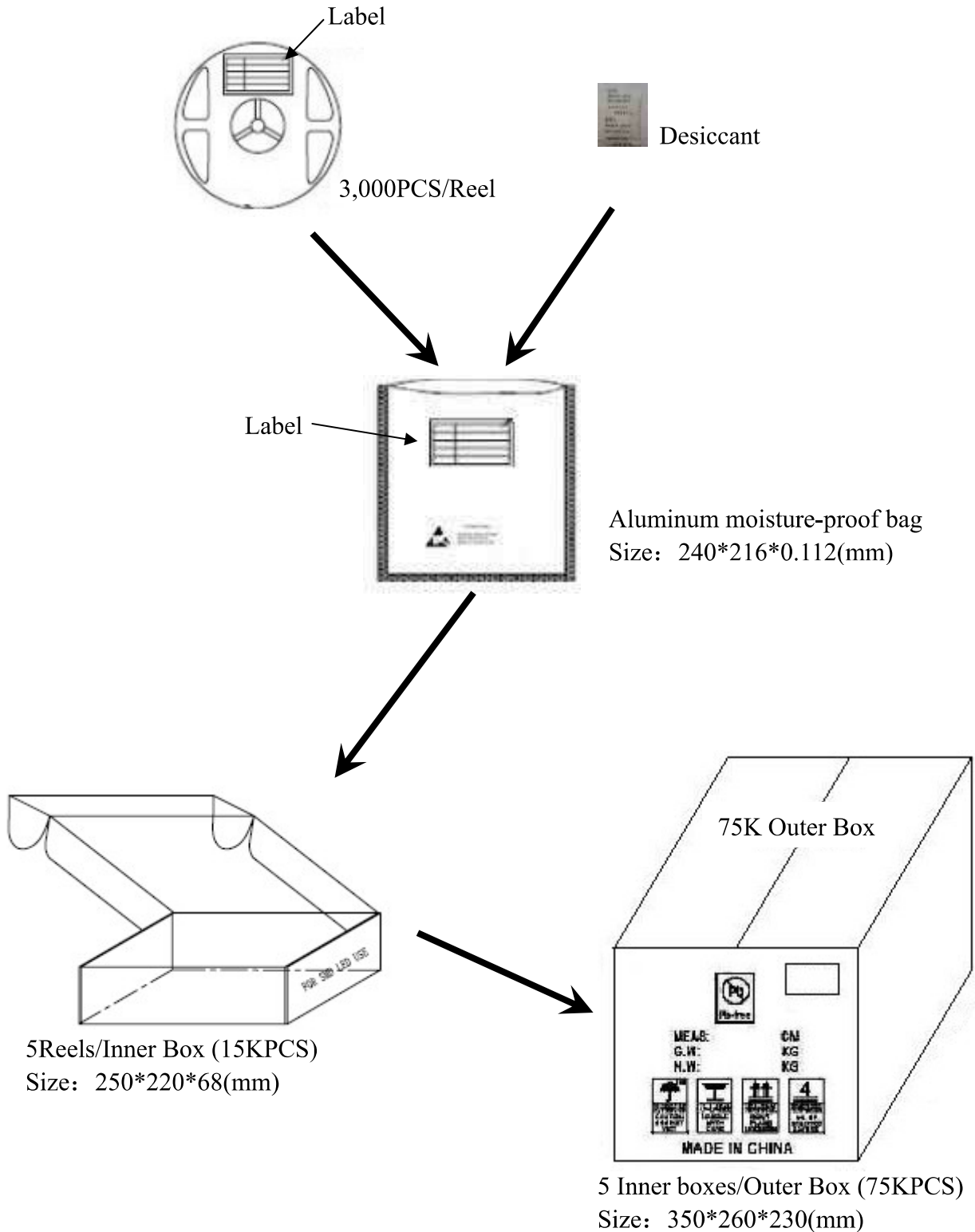
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Package & Shipping Instructions





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REVISION HISTORY

DATE	REVISION CONTENTS	VERSION
2016-3-20	New	A