



TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.

Tel : (852) 2540 7288
http://www.toyo-led.com

Fax : (852) 2517 1797
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P/N: TY-A1206BL1-1

1206 Package 3.2*1.6mm Surface Mount LEDs Series

SPECIFICATION FOR CUSTOMER APPROVAL

P/N: TY-A1206BL1-1

DATE : May 19, 2016

PREPARED BY : Chen Li fen

CONFIRMED BY : *Yan guoliang*



PLEASE CONFIRM & SIGN BACK THIS SHEET TO US

CUSTOMER:

(COMPANY CHOP)

APPROVAL BY:

(SIGNATURE)



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✧ Features:

- 3.2*1.6*0.68 mm
- Mono-color type
- Soldering methods :All SMT assembly methods
- Comply ROHS standard

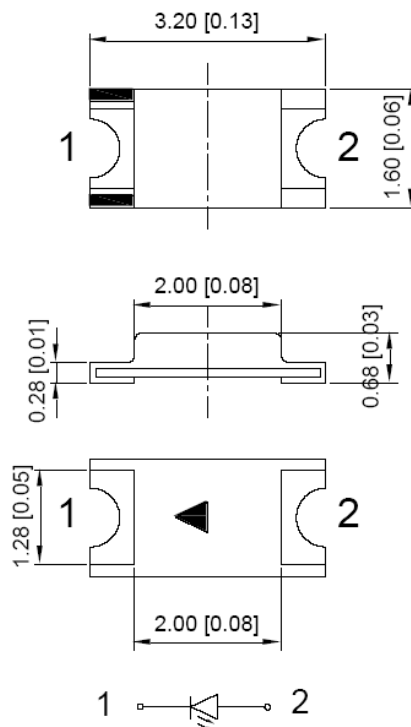
✧ Description

The Blue source color devices are made with **InGaN** 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 $\pm 0.1\text{mm}$ (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-A1206BL1-1	Blue	Water clear	InGaN

✧ Absolute Maximum Ratings(Ta=25℃)

Item	Symbol	Maximum	Unit
Power Dissipation	PD	105	mW
Continuous Forward Current	I _{Fmax}	30	mA
Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width)	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Electrostatic discharge	ESD	8000	V
Operating Temperature Range	T _{opr}	-40 to +85	℃
Storage Temperature Range	T _{stg}	-40 to +85	℃

✧ Electrical/Optical Characteristics(Ta=25℃)

Item	Symbol	Condition	Min.	Typ.	Max	Unit
Forward Voltage	V _F	I _F =20mA	2.8	--	3.4	V
Luminous Intensity	I _V	I _F =20mA	160	220	--	mcd
Wavelength	λ	I _F =20mA	464	--	474	nm
Viewing Angle	2θ _{1/2}	I _F =20mA	--	120	--	Deg
Reverse Current	I _R	V _R =5V	--	--	10	uA



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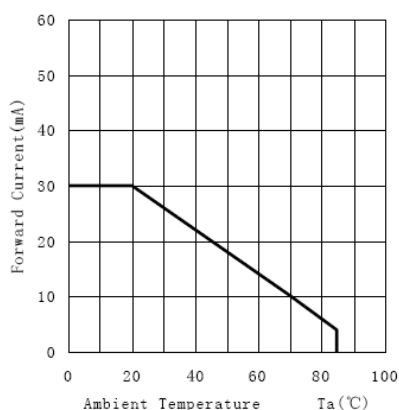
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✧ Typical Electro-Optical Characteristics Curves

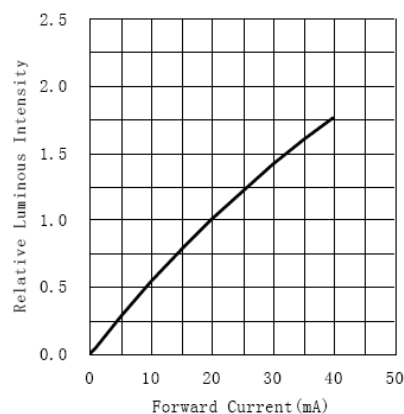
Ambient Temperature vs. Forward Current

环境温度与正向电流特性曲线



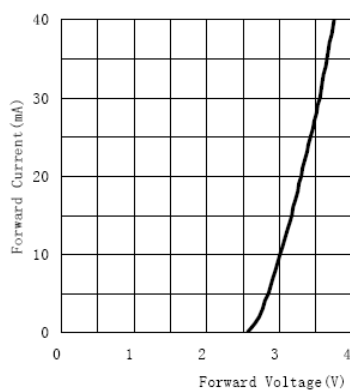
Forward Current VS. Relative Intensity

正向电流与相对光强特性曲线



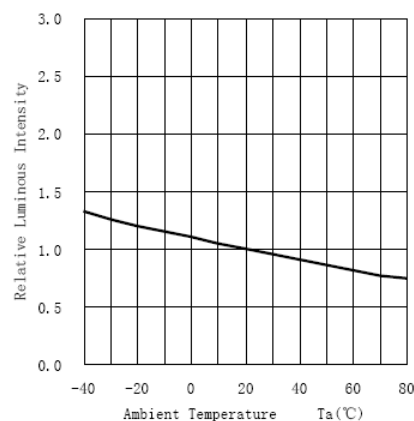
Forward Voltage VS. Forward Current

正向电压与正向电流特性曲线



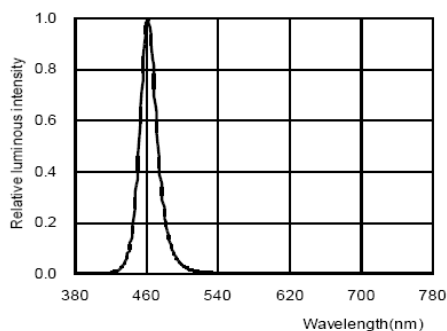
Ambient Temperature VS. Relative Intensity

环境温度与相对光强特性曲线



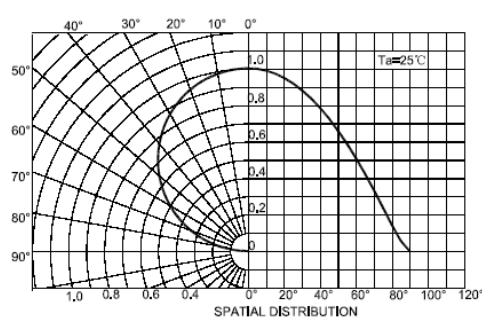
Relative spectral emission

相对光谱分布特性曲线



Radiation diagram

辐射图特性曲线





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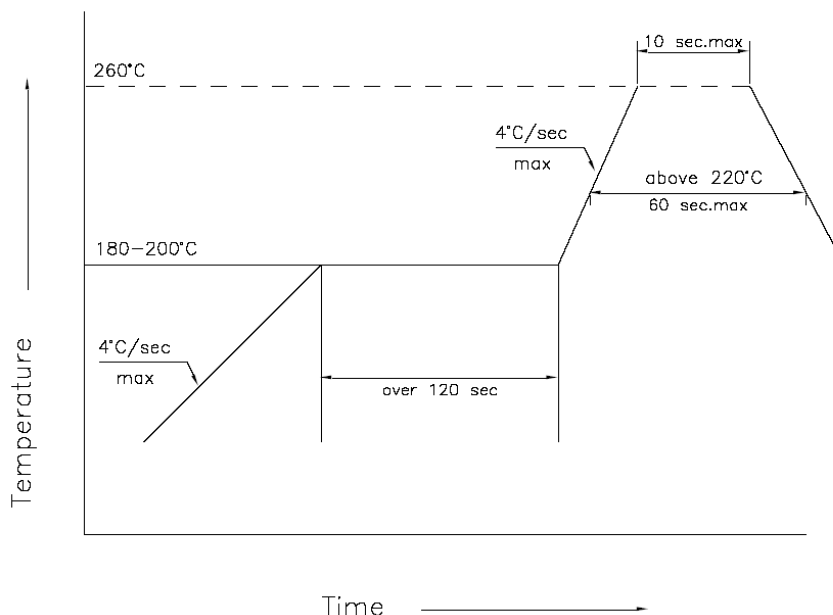
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✧ Reliability Test Items And Conditions

NO.	Item	Test Condition	Test Hr/cycle/time	Sample Q'ty	Ac/Re
1	Reflow	TEMP:260±5℃; T=10Sec	3 times	22pcs	0/1
2	Temperature Cycle	H:100℃ 30mins To(5mins) L:-30℃ 30mins	100 cycles	22pcs	0/1
3	High Temperature Storage	TEMP:+100℃	1000hrs	22pcs	0/1
4	Low Temperature Storage	TEMP:-30℃	1000hrs	22pcs	0/1
5	DC Operating Life	IF=20MA	1000hrs	22pcs	0/1
6	High Temperature	65℃	240hrs	22pcs	0/1
7	High Humidity	R.H.= 85%		22pcs	0/1

SMT Reflow Soldering Instructions

- 1.Reflow soldering should not be done more than two times.
- 2.When soldering , do not put stress on the LEDs during heating





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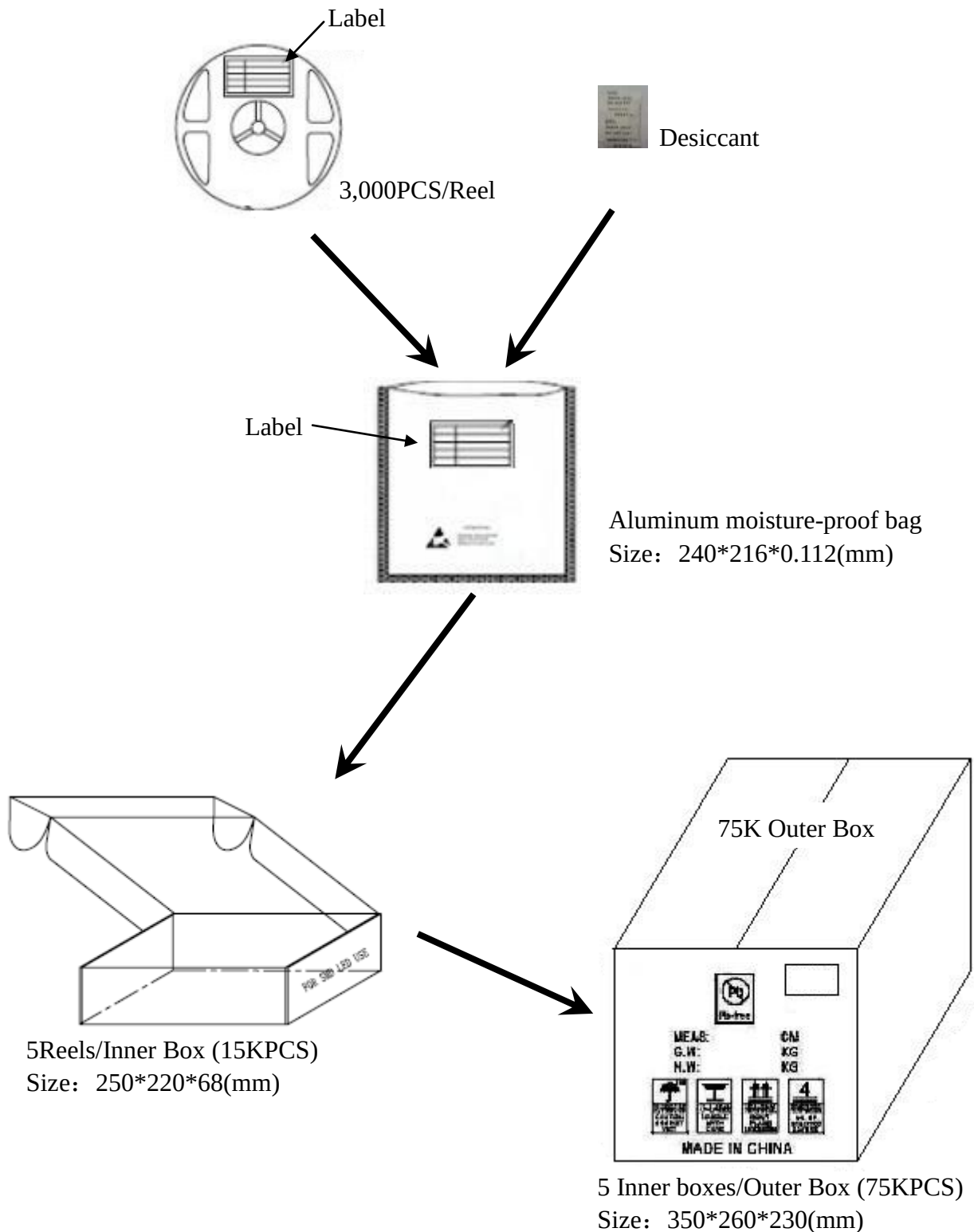
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✧ Package & Shipping Instructions





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REVISION HISTORY

DATE	REVISION CONTENTS	VERSION
2016-05-19	New	A