



TOYO LED ELECTRONICS LIMITED

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

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P/N: TY-Y1206UA1(0.90)

1206 Package 3.2*1.6mm Surface Mount LEDs Series

SPECIFICATION FOR CUSTOMER APPROVAL

P/N: TY-Y1206UA1(0.90)

DATE : August 21, 2015

PREPARED BY : Tang qing

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*0.9 mm
- Mono-color type
- Soldering methods :All SMT assembly methods
- Comply ROHS standard

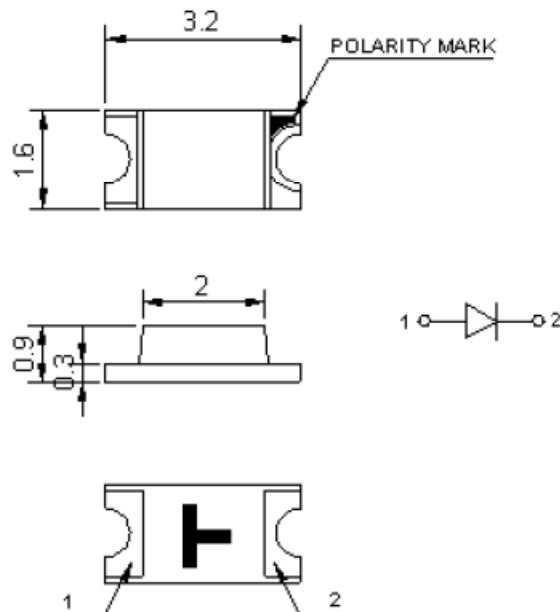
◇ Description

The Amber 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 $\pm 0.1\text{mm}(0.004")$ 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-Y1206UA1(0.90)	Amber	Water clear	AlGaInP

✧ Absolute Maximum Ratings(Ta=25)

Item	Symbol	Maximum	Unit
Power Dissipation	PD	60	mW
Continuous Forward Current	I _{Fmax}	25	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	
Storage Temperature Range	T _{stg}	-40 to+85	
Lead Solder Temperature	T _{sol}	260°C for 3 seconds	

✧ Electrical/Optical Characteristics(Ta=25)

Item	Symbol	Condition	Min.	Typ.	Max	Unit
Forward Voltage	V _F	I _F =20mA	---	1.9	2.2	V
Luminous Intensity	I _v	I _F =20mA	70	100	---	mcd
Wavelength	λ	I _F =20mA	600	---	610	nm
Viewing Angle	2θ _{1/2}	I _F =20mA	---	120	---	Deg
Reverse Current	I _R	V _R =5V	---	---	10	uA



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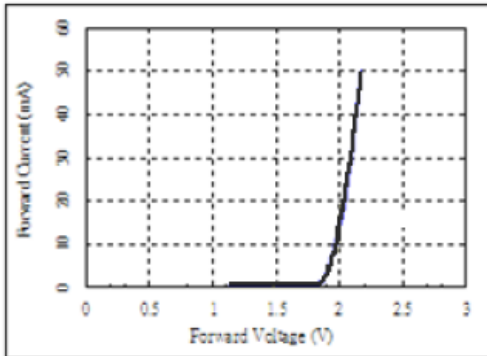


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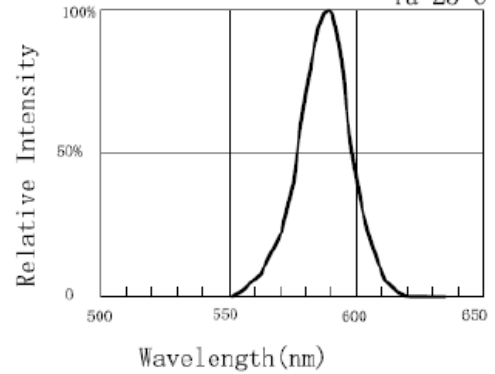
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◇ Typical Electro-Optical Characteristics Curves

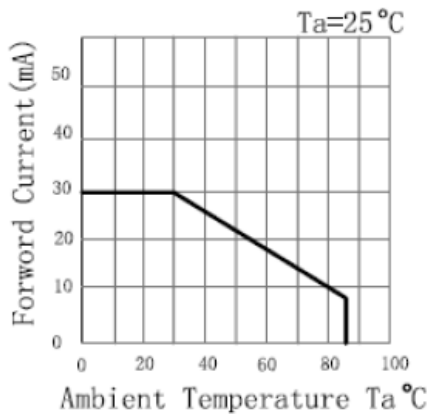
Forward Current Vs. Forward Voltage



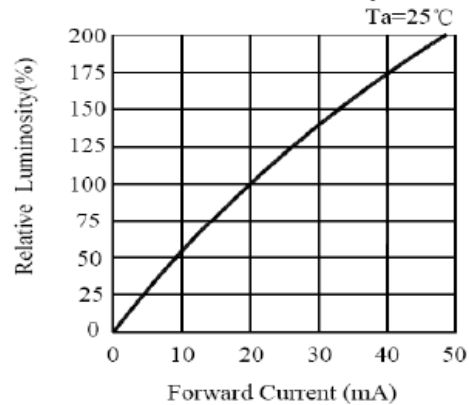
Relative Intensity VS Wavelength
 $T_a=25^\circ\text{C}$



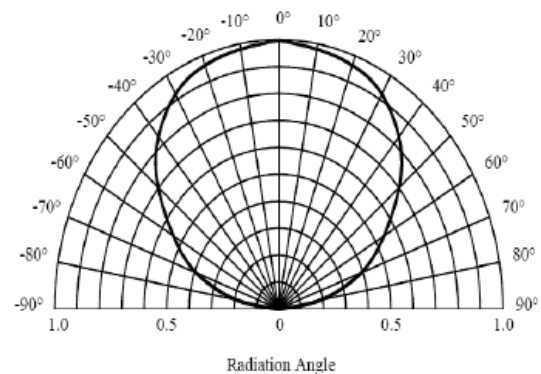
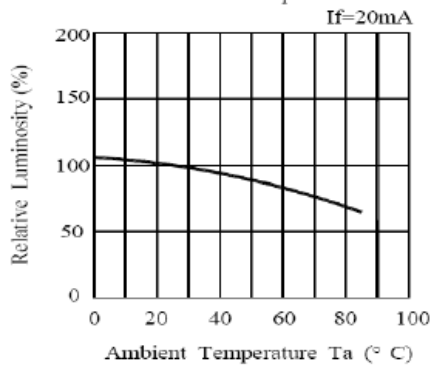
Forward Current VS
 Ambient Temperature



Forward Current Vs.
 Relative Luminosity



Relative Luminosity Vs.
 Ambient Temperature





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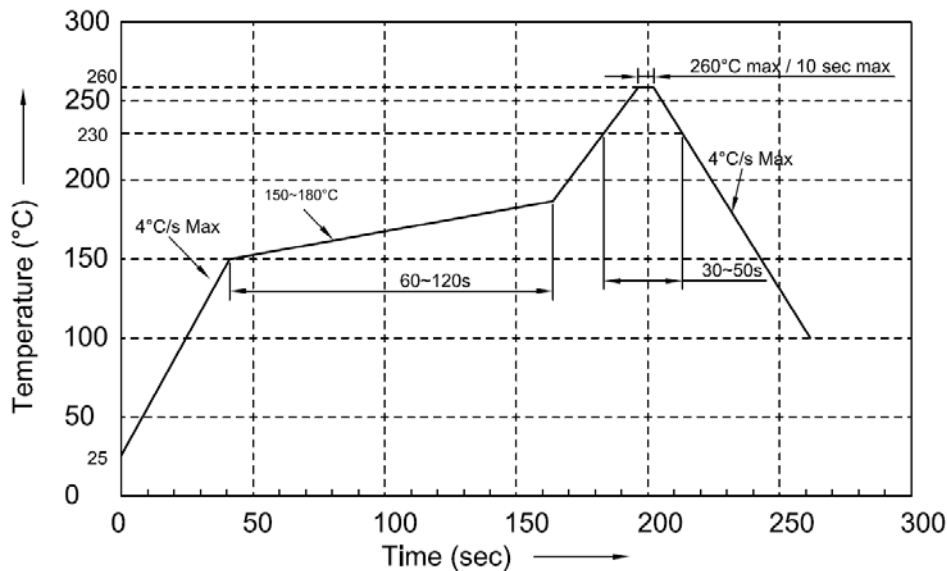
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◇ Reliability Test Items And Conditions

NO.	Item	Test Condition	Test Hr/cycle/time	Sample Q'ty	Ac/Re
1	Reflow	TEMP:260±5 ; Min.5Sec	6 min	22pcs	0/1
2	Temperature Cycle	H:+90 30mins To(5mins) L:-30 30mins	300 cycles	22pcs	0/1
3	Thermal Shock	H:+100 20mins To(5mins) L:-40 20mins	300 cycles	22pcs	0/1
4	High Temperature Storage	TEMP:+100	1000hrs	22pcs	0/1
5	Low Temperature Storage	TEMP:-30	1000hrs	22pcs	0/1
6	DC Operating Life	IF=20MA	1000hrs	22pcs	0/1
7	High Temperature	65	240hrs	22pcs	0/1
8	High Humidity	R.H.= 85%		22pcs	0/1

◇ SMT Reflow Soldering Instructions



Notes:

1. We recommend the reflow temperature 245±5 .The maximum soldering temperature should be limited to 260 for 10s (max).
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.



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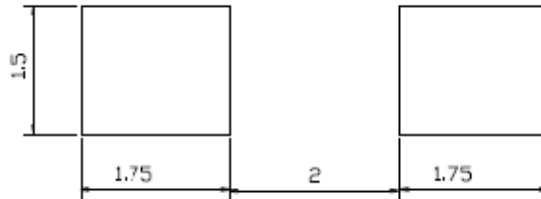
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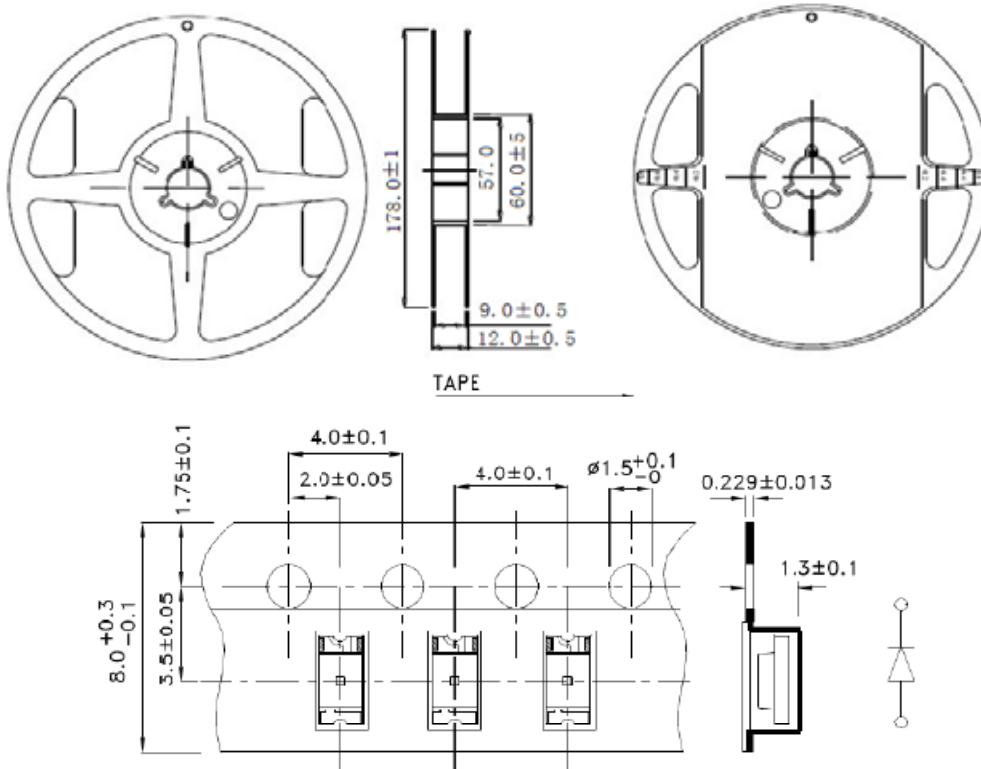
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◇ Recommended Soldering Pad Dimensions



◇ 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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❖ Package & Shipping Instructions

